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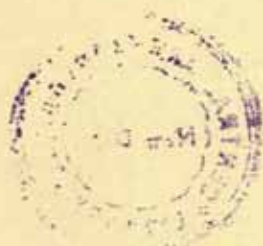
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Vol. 70

D.G.A. 79.



PROCEEDINGS
OF THE
Society of Antiquaries of Scotland





1023

PROCEEDINGS

OF THE

Society of Antiquaries of Scotland

SESSION

MCMXXXV.-MCMXXXVI.

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LAWS
AND
LIST OF FELLOWS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND





L A W S

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

INSTITUTED NOVEMBER 1780 AND INCORPORATED BY
ROYAL CHARTER 6TH MAY 1783.

(Revised and adopted November 30, 1901.)

1. The purpose of the Society shall be the promotion of ARCHÆOLOGY, especially as connected with the investigation of the ANTIQUITIES AND HISTORY OF SCOTLAND.

2. The Society shall consist of Fellows, Honorary Fellows, Corresponding Members, and Lady Associates.

3. Candidates for admission as Fellows must sign the Form of Application prescribed by the Council, and must be proposed by a Fellow and seconded by two members of the Council. Admission shall be by ballot.

4. The Secretaries shall cause the names of the Candidates and of their Proposers to be inserted in the billet calling the Meeting at which they are to be balloted for. The Ballot may be taken for all the Candidates named in the billet at once; but if three or more black balls appear, the Chairman of the Meeting shall cause the Candidates to be balloted for singly. Any Candidate receiving less than two-thirds of the votes given shall not be admitted.

5. Honorary Fellows shall consist of persons eminent in Archæology, who must be recommended by the Council, and balloted for in the same way as Fellows; and they shall not be liable for any fees of admission or annual subscriptions. The number of Honorary Fellows shall not exceed twenty-five.

6. Corresponding Members must be recommended by the Council and balloted for in the same way as Fellows, and they shall not be liable for any fees of admission or annual subscriptions.

7. Ladies who have done valuable work in the field of Archæology may be admitted as Lady Associates. The number of Lady Associates shall not exceed twenty-five. They shall be proposed by the Council and balloted for in the same way as Fellows, and shall not be liable for any fees of admission or annual subscriptions.

8. Before the name of any person is added to the List of Fellows, such person shall pay to the funds of the Society Two Guineas as an entrance fee and One Guinea for the current year's subscription, or may compound for the entrance fee and all annual subscriptions by the payment of Twenty Guineas at the time of admission. Fellows may compound for future annual subscriptions by a single payment of Fifteen Guineas after having paid five annual subscriptions; or of Ten Guineas after having paid ten annual subscriptions.

9. The subscription of One Guinea shall become due on the 30th November in each year for the year then commencing; and if any Fellow who has not compounded shall fail to pay the subscription for three successive years, due application having been made for payment, the Treasurer shall report the same to the Council, by whose authority the name of the defaulter may be erased from the list of Fellows.

10. Every Fellow not being in arrears of the annual subscription shall be entitled to receive the printed Proceedings of the Society from the date of election.

11. None but Fellows shall vote or hold any office in the Society.

12. Subject to the Laws and to the control of the Society in General Meetings, the affairs of the Society shall be managed by a Council elected and appointed as hereinafter set forth. Five Members of the Council shall be a quorum.

13. The Office-Bearers of the Society shall consist of a President, three Vice-Presidents, two Secretaries for general purposes, two Secretaries for Foreign Correspondence, a Treasurer, two Curators of the Museum, a Curator of Coins, and a Librarian. The President shall be elected for a period of five years, and the Vice-Presidents for a period of three years.

One of the Vice-Presidents shall retire annually by rotation and shall not again be eligible for the same office until after the lapse of one year. All the other Office-Bearers shall be elected for one year and shall be eligible for re-election.

14. In accordance with the agreement subsisting between the Society and the Government, the Board of Manufactures (now the Board of Trustees) shall be represented on the Council by two of its Members (being Fellows of the Society) elected annually by the Society. The Treasury shall be represented on the Council by the King's and Lord Treasurer's Remembrancer (being a Fellow of the Society).

15. The Council shall consist of the Office-Bearers, the three representative Members above specified, and nine Fellows, elected by the Society.

16. Three of the nine elected Members of Council shall retire annually by rotation, and shall not again be eligible till after the lapse of one year. Vacancies among the elected Members of Council and Office-Bearers occurring by completion of term of office, by retirement on rotation, by resignation, by death or otherwise, shall be filled by election at the Annual General Meeting. The election shall be by Ballot, upon a list issued by the Council for that purpose to the Fellows at least fourteen days before the Meeting.

17. The Council may appoint committees or individuals to take charge of particular departments of the Society's business.

18. The Annual General Meeting of the Society shall take place on St Andrew's Day, the 30th of November, or on the following day if the 30th be a Sunday.

19. The Council shall have power to call Extraordinary General Meetings when they see cause.

20. The Ordinary Meetings of the Society shall be held on the second Monday of each month, from December to May inclusive.

21. Unless special arrangements to the contrary have been made, copyright of *The Proceedings* and of all papers printed therein, as well as of all illustrations, shall belong to the Society. This provision shall not apply to illustrations made from blocks borrowed from outside sources.

22. Every proposal for altering the Laws must be made through the Council; and the Secretaries, on instructions from the Council, shall cause intimation thereof to be made to all the Fellows at least one month before the General Meeting at which it is to be determined on.

Form of Special Bequest.

I, A. B., do hereby leave and bequeath to the Society of Antiquaries of Scotland incorporated by Royal Charter, my collection of and I direct that the same shall be delivered to the said Society on the receipt of the Secretary or Treasurer thereof.

General Form of Bequest.

I, A. B., do hereby leave and bequeath to the Society of Antiquaries of Scotland incorporated by Royal Charter, the sum of £ sterling [*to be used for the general purposes of the Society*] [*or, to be used for the special purpose or object of*], and I direct that the said sum may be paid to the said Society on the receipt of the Treasurer for the time being.

LIST OF THE FELLOWS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND,

NOVEMBER 30, 1936.

PATRON :
HIS MAJESTY THE KING.

- 1932.*ADAM, DAVID RANKINE, 76 Stewarton Drive, Cambuslang.
1931. AGNEW, Rev. HUGH M., M.A., Minister of St George's Presbyterian Church, 20 St James Road, East London, South Africa.
1917. AGNEW, STAIR CARNEGIE, M.A., LL.B., Barrister-at-Law, 60 Elm Park Gardens, London, S.W. 10.
1892. AILSA, The Most Hon. The Marquess of, Culzean Castle, Maybole.
1935. AINSWORTH, JOHN FRANCIS, B.A., 116 Artillery Mansions, Victoria Street, London, S.W. 1.
1932. AINSWORTH, RICHARD, Author and Lecturer, Longmead, 54 Lauderdale Avenue, Cleveleys, near Blackpool.
1929. ALEXANDER, W. M., Journalist, Hillview Road, Cults, Aberdeenshire.
1936. ALLAN E., F.R.C.S. Ed., West View, Rose Avenue, Elgin.
1930. ALLAN, Mrs H. M., 10 Ainslie Place, Edinburgh, 3.
1926. ALLAN, WILLIAM, M.B.E., Rhindmuir House, Baillieston.
1929. ANCKORN, WILFRED LORRAINE, Three-Corner Mead, Dunton Green, Kent.
1925. ANDERSON, ALEXANDER HUTTON, M.A., Donaldson's Hospital, Edinburgh, 12.
- 1922.*ANDERSON, ARTHUR R., 6 Bowmont Terrace, Glasgow, W. 2.
1897. ANDERSON, Major JOHN HAMILTON, 2nd East Lancashire Regiment, c/o Messrs Cox & Co., 16 Charing Cross, London, S.W. 1.
1934. ANDERSON, Rev. JOHN, Sconser, Portree, Isle of Skye.
- 1902.*ANDERSON, Major ROBERT DOUGLAS, c/o The Manager, Lloyd's Bank, Paignton, Devon.
1920. ANDERSON, Rev. ROBERT S. G., B.D., The Manse, Castle Kennedy, Wigtownshire.
1936. ANDREW, Rev. HARRY, Minister of Gilfillan Memorial Church, Gilfillan Manse, Ancrum Road, Dundee.
1913. ANGUS, Miss MARY, Immeriach, 354 Blackness Road, Dundee.
1921. ANGUS, WILLIAM, Keeper of the Registers and Records of Scotland, H.M. General Register House, Edinburgh, 2.
- 1926.*ANGUS-BUTTERWORTH, L. M., F.R.G.S., F.Z.S., Lea Hurst, Dunham-Massey, Cheshire.
1910. ANNAN, J. CRAIG, Glenbank, Lenzie.
1897. ANSTRUTHER-GRAY, WILLIAM, Lieut.-Col., Royal Horse Guards, Kilmany, Fife.
1931. ARBUCKLE, WILLIAM F., M.A. (Edin. & Oxon.), H.M.I.S., 1 Murrayfield Gardens, Edinburgh, 12.
1931. ARCHER, GILBERT, St Oia, Park Road, Leith, Edinburgh, 6.
- 1918.*ARGYLL, His Grace The Duke of, Inveraray Castle.
1910. ARMSTRONG, A. LESLIE, M.C., F.S.I., F.S.A., 27 Victoria Road, Stockton Heath, Warrington.
1921. ARNOTT, JAMES ALEXANDER, F.R.I.B.A., 64 Frederick Street, Edinburgh, 2.
1910. ASHER, JOHN, 13 Pitcullen Crescent, Perth.

An asterisk (*) denotes Life Members who have compounded for their Annual Contributions.

1924. ASHWORTH, Mrs. Hillbank, Grange Loan, Edinburgh, 9.
1931. ASKEW, GILBERT H., Casula, Corbridge-on-Tyne, Northumberland.
1935. ATHERTON, Rev. WILLIAM BENNARD, B.A., late R.N., Coberley Rectory, Cheltenham, Glos.
- 1917.*ATHOLL, His Grace The Duke of, K.T., C.B., M.V.O., D.S.O., LL.D., Blair Castle, Blair Atholl.
1915. BAILLET DE LATOUR, The Countess Vincent, The Beehive, Uiginish, Dunvegan, Skye.
1932. BAILLIE, JAMES M'KENZIE, 17 Alpin Road, Dundee.
1933. BAIN, F. W., M.C., 29 Palace Court, London, W. 2.
1922. BAIN, Rev. JOHN, Minister of St Paul's Church, 13 Dryden Place, Newington, Edinburgh, 9.
1936. BAIRD, GERALD FORTAY, F.L.A.S., Chartered Land Agent, Derwent, Helensburgh.
1925. BAIRD, JAMES, 81 Meadowpark Street, Dennistoun, Glasgow, E. 1.
1922. BAIRD, Sir WILLIAM MACDONALD, J.P., F.F.S., 7 St Colme Street, Edinburgh, 3.
1918. BALFOUR, Lieut.-Col. FREDERICK ROBERT STEPHEN, M.A., D.L., Dawyck, Stobo, Tweeddale.
1933. BALFOUR, The Hon. JAMES MONCHEIFF, O.B.E., 44 Gloucester Square, London, W. 2.
1926. BALFOUR-MELVILLE, EVAN W. M., M.A., Lecturer in History in the University of Edinburgh, 2 South Learmonth Gardens, Edinburgh, 4.
- 1915.*BALLANTINE, JAMES, 24 Hill Street, Edinburgh, 2.
1933. BALLINGALL, GEORGE W., Dalgynch, 20 Midmar Gardens, Edinburgh, 10.
1921. BANERJEE, RASENARI, M.B., F.I.A.Sc. (no address).
1926. BANNERMAN, JOHN, St Margarets, Elgin.
1928. BANNERMAN, Captain RONALD R. BRUCE, M.C., 19 Dorton Road, South Croydon.
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 University of Michigan, Ann Arbor.
 University of Minnesota, U.S.A.
 University of Pennsylvania, Philadelphia, Pa.,
 U.S.A.
 Victoria University of Manchester.
 Yale University Library, New Haven, Connecticut,
 U.S.A.</p> |
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LIST OF THE CORRESPONDING MEMBERS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND.

NOVEMBER 30, 1936.

- | | |
|---|--|
| 1923. BLACK, GEORGE F., Ph.D., New York Public Library, New York City, U.S.A. | 1933. MANN, ALEXANDER, 22 Boyd Street, Laurieston, Falkirk. |
| 1927. BREMNER, SIMON, Mid Town, Freswick, Caithness. | 1915. MATHIESON, JOHN, F.R.S.E., 42 East Claremont Street, Edinburgh, 7. |
| 1928. FORTUNE, JOHN ROBERT, Airhouse, Oxtou, Berwickshire. | 1915. MORRISON, MURDO, Lakefield, Bragar, Lewis. |
| 1913. FRASER, JOHN, 3 James Place, Leith, Edinburgh, 6. | 1931. SMITH, SAMUEL, Mumrills, Laurieston, near Falkirk. |
| 1913. LEVY, Mrs N. (no address). | 1921. URQUHART, ANDREW, M.A., J.P. (no address). |
| | 1933. YORSTON, JAMES, Hullion, Rousay, Orkney. |

LIST OF HONORARY FELLOWS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND,
NOVEMBER 30, 1936.

[According to the Laws, the number is limited to TWENTY-FIVE.]

1897.

Sir W. M. FLINDERS PETRIE, D.C.L., LL.D., F.B.A., F.R.S., Edwards Professor of Egyptology
in University College, London, W.C. 1.

1908.

Sir ARTHUR JOHN EVANS, M.A., D.C.L., Youlbury, near Oxford.
Professor H. DRAGENDORFF, Freiburg i. Baden, Johan von Weirhstrasse 4.

1919.

LÉON COUTIL, Correspondant du Ministère de l'Instruction Publique, etc., etc., Les Andelys,
Eure, France.
5 RENÉ CAGNAT, Secrétaire Perpétuel de l'Académie des Inscriptions et Belles Lettres, Professeur
au Collège de France, Palais de l'Institut (3 rue Mazarine), Paris.

1923.

M. L'ABBÉ H. BREUIL, D.L.C., Professeur au Collège de France et à l'Institut de Paléontologie
Humaine, Paris, 52 Avenue de la Motte Piquet, Paris, XV^e.
Professor FRANZ CUMONT, 19 Corso d'Italia, Rome.
Sir G. F. HILL, K.C.B., M.A., LL.D., F.B.A., Litt.D., F.S.A., 12 Sussex Place, Regent's Park, London,
N.W. 1.

FRANK GERALD SIMPSON, M.A., 45 Fern Avenue, Jesmond, Newcastle-upon-Tyne.

- 10 Mrs ARTHUR STRONG, C.B.E., Litt.D., LL.D., F.S.A., Life-Fellow of Girton College, Cambridge, and Assistant Director of the British School at Rome, 35 Via Balbo, Rome (22).
A. M. TALLGREN, Professeur Universitetet, Helsingfors, Finland.

1926.

MARCELLIN BOULE, Professor in the Muséum National d'Histoire Naturelle, and Director of the Institut de Paléontologie Humaine, 1 rue René Panhard, boulevard Saint-Marcel, Paris 13^e.

Professor Dr philos A. W. BRØGGER, Bestyrer av Universitetets Oldsaksamling, Tullinløkken, Oslo, Norway.

O. M. DALTON, M.A., F.B.A., Uplands, Bathwick Hill, Bath.

- 15 Professor Dr ERNST FABRICIUS, Geheimer Rat, Goethestrasse 44, Freiburg im Breisgau, Germany.
Sir ARTHUR KEITH, M.D., D.Sc., LL.D., F.R.C.S. (Eng.), F.R.S., Conservator of the Museum and Hunterian Professor, Royal College of Surgeons of England; Past-President of the Royal Anthropological Institute of Great Britain and Ireland, and of the Anatomical Society. Master of the Buckston Browne Farm, Downe, Farnborough, Kent.
Dr R. PARIBENI, Director of the Institute of Archaeology of Rome, Museo Nazionale Romano, Rome.

1927.

DON HERMILIO ALCALDE DEL RIO, Torrelavega, Santander, Spain.

1931.

Mrs M. E. CUNNINGTON, 33 Long Street, Devizes, Wiltshire.

- 20 Professor Dr ROBERT ZAHN, Director bei den Staatlichen Museen, Honorar-professor an der Universität, Am Lustgarten, Berlin, C.2.

1933.

Professor Dr phil. HAAKON SHETELIG, Bergens Museums Oldsamling, Bergen, Norway.

1935.

Professor GERHARD BERSU, Zentralkonstruktion des Archäologischen Instituts des Deutschen Reiches, Viktoriastrasse 27, Berlin, W. 35.

LIST OF THE LADY ASSOCIATES
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND,
NOVEMBER 30, 1936.

[According to the Laws, the number is limited to TWENTY-FIVE.]

1900.

- Miss M. A. MURRAY, Edwards Library, University College, London, W.C. 1.
2 Mrs E. S. ARMITAGE, M.A., Parkhurst, Middlesbrough.

SOCIETIES, INSTITUTIONS, &c., EXCHANGING PUBLICATIONS.

Architectural, Archæological, and Historic Society
of Chester and North Wales.
Belfast Natural History and Philosophical Society.
Berwickshire Naturalists' Club.
Bristol and Gloucestershire Archæological Society.
British Archæological Association.
Buchan Field Club.
Buteshire Natural History Society.
Cambrian Archæological Association.
Cambridge Antiquarian Society.
Carmarthenshire Antiquarian Society.
Courtauld Institute of Art.
Cumberland and Westmorland Antiquarian and
Archæological Society.
Derbyshire Archæological and Natural History
Association.
Dumfriesshire Natural History and Antiquarian
Society.
Edinburgh Architectural Association.
Edinburgh Geological Society.
Elgin Literary and Scientific Society.
Essex Archæological Society.
Gaelic Society of Inverness.
Glasgow Archæological Society.
Hampshire Field Club and Archæological Society.
Hawick Archæological Society.
Historic Society of Lancashire and Cheshire.
Institute of Archæology, Liverpool.
Kent Archæological Society.
Orkney Antiquarian Society, Kirkwall.
Perthshire Society of Natural Science.
Powys-land Club.
Royal Anthropological Institute.
Royal Archæological Institute of Great Britain
and Ireland.
Royal Commission on Ancient and Historical
Monuments of Scotland.
Royal Commission on the Ancient and Historical
Monuments and Constructions in Wales and
Monmouthshire.

Royal Historical Society.
Royal Institute of British Architects, London.
Royal Irish Academy.
Royal Numismatic Society.
Royal Society of Antiquaries of Ireland.
Scottish Ecclesiological Society.
Shropshire Archæological Society.
Society for the Promotion of Roman Studies.
Society of Antiquaries of London.
Society of Antiquaries of Newcastle-upon-Tyne.
Somersetshire Archæological and Natural History
Society.
Stirling Natural History and Archæological Society.
Surrey Archæological Society.
Sussex Archæological Society.
Third Spalding Club.
Thoresby Society.
Viking Society for Northern Research.
Wiltshire Archæological Society.
Yorkshire Archæological Society.

Archæological Survey of India.
British School at Rome.
Colombo Museum, Ceylon.
Royal Canadian Institute, Toronto.
Royal Ontario Museum of Archæology, Toronto, 5,
Canada.
University Museum, Dunedin, New Zealand.

FOREIGN SOCIETIES, UNIVERSITIES, MUSEUMS, &c.

Académie des Inscriptions et Belles Lettres, Paris.
Académie des Sciences d'Ukraine, Kieff.
Académie Royale Serbe, Belgrade.
Administration des Monuments, Riga, Lettonie.
Alterthumsgesellschaft, Königsberg.
Anthropologische Gesellschaft, Vienna.
Antiquarische Gesellschaft, Zürich.
Archæological Institute of the Imperial University
of Kyoto, Japan.

Archäologisches Institut des Deutschen Reiches
Römisch-Germanische Kommission, Frankfurt
am Main.
Associació Catalana d'Antropologia, Etnologia i
Prehistòria, Barcelona Universitat, Spain.
Bosnisch-Herzegovinisches Landes-Museum, Sara-
jevo.
Bureau of Ethnology, Washington.
California University in Berkeley.
Commissione Archeologica Comunale di Roma.
Cornell University Library, Ithaca, New York.
Čal. státní archaologický ústav (Institut archéolo-
gique de l'Etat tchécoslovaque) Praha, Re-
publika československá.
Deutsch-ausländischer Buchtausch, Berlin.
Department of Antiquities in Palestine, Jerusalem.
Ecole d'Anthropologie de Paris.
Faculté des Sciences de Lyon.
Field Museum of Natural History, Chicago.
Foreningen til Norske Fortidsmindesterkers
Bevaring.
Göteborg och Bohusläns Fornminnesföreningen.
Göttingen University.
Historische und Antiquarische Gesellschaft, Basel.
Historischer Verein für Niedersachsen.
Institut Archéologique Bulgare, Sofia.
Institut de Paléontologie Humaine, Paris.
Junta Para Ampliación de Estudios—Comisión de
Investigaciones Paleontológicas y Prehistóricas,
Madrid.
Junta Superior de Excavaciones y Antigüedades,
Madrid.
Kiel University.
Kongelige Norske Videnskabers Selskab, Trondhjem.
Landesmuseum Nassauischer Altertümer zu Wies-
baden.
Leipzig University.
Musée Archéologique Erasme Majewski de la Société
des Sciences de Varsovie, Poland.
Musée d'Art et d'Histoire, Geneva, Switzerland.
Musée Guimet, Paris.
Musée National Suisse à Zürich.
Museum, Bergen, Norway.
Museum of Northern Antiquities, Oslo.
National Bohemian Museum, Prague, Czecho-
Slovakia.
National Museum, Zagreb, Yugoslavia.
Nordiska Museet, Stockholm.
Norsk Folkemuseum, Oslo, Norway.

Oslo University, Norway.
Peabody Museum, Cambridge, Mass., U.S.A.
Prähistorische Kommission der Akademie der
Wissenschaften in Wien.
Reale Accademia Nazionale dei Lincei, Rome.
Rhein Landesmuseum, Trier.
Rijks-Museum van Oudheden, Leiden.
Römisch-Germanisches Central Museum, Mainz,
Germany.
Royal Academy of History and Antiquities,
Stockholm.
Royal Society of Northern Antiquaries, Copenhagen.
Servicio de Investigación Prehistórica de la Excm.
Diputación Provincial de Valencia.
Smithsonian Institution, Washington, U.S.A.
Società Romana di Antropologia, Rome.
Société d'Anthropologie de Paris.
Société des Antiquaires de l'Ouest.
Société Archéologique d'Alexandrie.
Société Archéologique de Constantine, Algeria.
Société Archéologique du Midi de la France.
Société Archéologique de Montpellier.
Société Archéologique de Moravie.
Société Archéologique de Namur.
Société des Bollandistes, Brussels.
Société des Sciences de Semur (*Pro Alesia*).
Société Finlandaise d'Archéologie, Helsingfors.
Société d'Histoire et d'Archéologie de Gand.
Société Nationale des Antiquaires de France.
Société Préhistorique Française, Paris.
Société Préhistorique Polonaise.
Société Royale d'Archéologie, Bruxelles.
Städtisches Museum für Völkerkunde, Leipzig.
Stavanger Museum, Stavanger, Norway.
Universitat Library, Lund, Sweden.
University Library, Tartu, Estonia.
Uppsala University.
Verein für Nassauische Alterthumskunde, Wies-
baden.
Verein von Alterthumsfreunden im Rheinlande, Bonn.
Wiener Prähistorische Gesellschaft.

PERIODICALS.

L'Anthropologie, Paris.
Bulletin archéologique polonais, Warsaw.

LIBRARIES, BRITISH.

Athenæum Club Library, London.
Baillie's Institution, Glasgow.
Bodleian Library, Oxford.

British Museum Library.
 Chetham's Library, Manchester.
 Church of Scotland College Library, The Mound,
 Edinburgh.
 Free Library, Edinburgh.
 Free Library, Liverpool.
 Mitchell Library, Glasgow.
 National Library of Scotland, Edinburgh.
 National Library of Wales, Aberystwyth.
 Ordnance Survey Library, Southampton.
 Public Record Office Library, London.
 Royal Library, Windsor.
 Royal Scottish Museum Library, Edinburgh.
 Scottish National Portrait Gallery Library.
 Scottish Record Office, Historical Department.
 Signet Library, Edinburgh.
 Trinity College Library, Dublin.
 University Library, Aberdeen.

University Library, Cambridge.
 University Library, Edinburgh.
 University Library, Glasgow.
 University Library, St Andrews.
 Victoria and Albert Museum Library, London.

LIBRARIES, FOREIGN.

Bayerische Staatsbibliothek, Munich, Bavaria.
 Bibliothèque d'Art et d'Archéologie, Université de
 Paris.
 National Library, Paris.
 National Library, Vienna.
 Newberry Library, Chicago, U.S.A.
 Preussische Staatsbibliothek, Berlin.
 Public Library, Hamburg.
 Royal Library, Copenhagen.
 Royal Library, Stockholm.
 Sächsische Landesbibliothek, Dresden.

PROCEEDINGS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND

HUNDRED AND FIFTY-SIXTH SESSION, 1935-1936

ANNIVERSARY MEETING, 2nd December 1935.

SIR GEORGE MACDONALD, K.C.B., LL.D., D.Litt.,
F.B.A., President, in the Chair.

Robert Cross and W. J. Gibson were appointed Scrutineers of the Ballot for Office-Bearers.

The Ballot having been concluded, the Scrutineers found and declared the List of the Council for the ensuing year to be as follows:—

President.

Sir GEORGE MACDONALD, K.C.B., LL.D., D.Litt., F.B.A.

Vice-Presidents.

Sir FRANCIS J. GRANT, K.C.V.O., LL.D., Lord Lyon King of Arms.
Sheriff C. H. BROWN, K.C.

THOMAS YULE, W.S.

VOL. LXX.

Councillors.

The Hon. Sir HEW H. DALRYMPLE, K.C.V.O.	Representing the Board of Trustees.	Brigadier-General Sir ROBERT GILMOUR, Bart., C.B., C.V.O., D.S.O.
JOHN WARRACK, LL.D.		Major-General Sir WALTER OGILVIE, K.B.E., C.B., C.M.G.
JOHN A. INGLIS.	Representing the Treasury	IAN C. HANNAH, M.A., M.P.
H. H. MACKENZIE.		The Hon. LORD ST VIGEANS, LL.D.
Professor T. H. BRYCE, M.D., F.R.S.		Colonel CHARLES L. SPENCER, C.B.E., D.S.O.
WILLIAM ANGUS.		Brigadier-General E. CRAIG-BROWN, D.S.O.

Secretaries.

DOUGLAS P. MACLAGAN, W.S. | W. MACKAY MACKENZIE, D.Litt.

For Foreign Correspondence.

Professor V. GORDON CHILDE, B.Litt. | Professor W. M. CALDER, M.A., LL.D., F.B.A.

Treasurer.

J. BOLAM JOHNSON, C.A.

Curators of the Museum.

JAMES CURLE, LL.D., W.S. | JAMES S. RICHARDSON.

Curator of Coins.

ROBERT KERR, M.A.

Librarian.

ALEXANDER O. CURLE, C.V.O., LL.D.

On the recommendation of the Council Professor GERHARD BERSU, Zentralkdirektion des Archäologischen Instituts des Deutschen Reiches, Wilhelmstrasse 92/93, Berlin, W. 8, was elected an Honorary Fellow.

A Ballot having been taken, the following were elected Fellows:—

- JOHN FRANCIS AINSWORTH, B.A., 116 Artillery Mansions, Victoria Street, London, S.W. 1.
 Rev. WILLIAM BERNARD ATHERTON, B.A., late R.N., Coberley Rectory, Cheltenham, Glos.
 J. M. BARR, J.P., B.L., 120 St Vincent Street, Glasgow, C. 2.
 R. S. BRYDON, M.A., Ph.D., Craig Araig, Pitlochry, Perthshire.

- MISS MARJORIE EILEEN COURTNEY-LATIMER, Curator, East London Museum,
8 Lake St Vincent, P.O., Cambridge, South Africa.
- J. DUFF, Civil Servant, Record Office, H.M. General Register House, Edinburgh, 2.
- JOHN FOSTER FORBES, Appenfurth, Gullane, East Lothian.
- ALFRED HENRY FOSTER-SMITH, 6 Montpelier Road, Ealing, London, W. 5.
- WILLIAM GREENHILL, C.A., 34 Heriot Row, Edinburgh, 3.
- CHARLES P. HAMPSON, Wentworth, Eccles, Lancs.
- FREDERICK JOHNSTON, J.P., Woodville, Falkirk.
- LAURENCE H. LIDDLE, Ballycroy, Braid Farm Road, Edinburgh, 10.
- RONALD MACDONALD ROBERTSON, W.S., Straloch, Alnwickhill Road, Liberton,
Edinburgh, 9.
- JOHN GEDDES MACGREGOR, Ph.D., 67 Ashley Drive, Edinburgh, 11.
- WILLIAM DAVID McLAREN, Indian Educational Dept. (Retired), Hillwood
Cottage, Ratho Station, Midlothian.
- IAN A. RICHMOND, M.A., F.S.A., Lecturer in Roman-British Archaeology,
University of Durham, Armstrong College, Newcastle-upon-Tyne, 2.
- Rev. JAMES G. DAWSON SCOTT, The Manse of Logiealmond, Perthshire.
- LAURENCE GRAY SCOTT, Vingolf, Lerwick, Shetland.

The President read the list of Members deceased since the last Annual Meeting:—

Fellows.

	Elected.
MICHAEL C. ANDREWS, M.R.I.A., F.R.G.S., F.R.S.G.S., F.R.S.A.I., Orsett, Derryvolgie Avenue, Belfast	1923
Rev. ANDREW BAIRD, B.D., J.P., Minister of the United Parishes of Broughton, Kilbucho, and Glenholm, The Manse, Broughton, Peeblesshire	1920
JOHN BEST, Warriston House, Edinburgh	1923
GEORGE BROWN, 2 Spottiswoode Street, Edinburgh	1888
HIS GRACE JOHN CHARLES, DUKE OF BUCCLEUCH and QUEENSBERRY, K.T., Dalkeith House, Midlothian	1901
BRIAN C. CLAYTON, "Wyelands," Ross, Herefordshire	1924
JAMES M. COGHILL, Colzean, Viewlands Place, Perth	1928
JOHN CORRIE, Burnbank, Moniaive, Dumfriesshire	1911
ROBERT CRAWFORD, Ochilton, 36 Hamilton Drive, Maxwell Park, Glasgow	1909
JAMES W. DRUMMOND, Westerlands, Stirling	1900
ALEXANDER MACKENZIE FLEMING, 87 Cowgate, Dundee	1924
WILLIAM FORSYTH, F.R.C.S.E., c/o Messrs Livingstone & Dickson, 39 Melville Street, Edinburgh	1911
JAMES GARDNER, Clunie, Paisley	1915
JOHN GIBSON, 19 Pilrig Street, Leith	1924
Professor IAN B. STOUGHTON HOLBOURN, M.A.Oxon., F.R.G.S., Penkaet Castle, Pencaitland, Edinburgh	1919
THOMAS M. HUNTER, Union Bank House, Stranraer	1926
ANDREW BAIN IRVINE, J.P., F.R.G.S., Waverley, 49 Palmerston Road, Bowes Park, London, N. 22	1928

4 PROCEEDINGS OF THE SOCIETY, DECEMBER 2, 1935.

	Elected.
GEORGE SMITH LAING, M.B.E., J.P., Glentarff, Inverness	1928
BELLERBY LOWERISON, Green Garth, Houghton, Huntingdon	1923
The Rt. Hon. ALICE, LADY MACDONALD OF THE ISLES, Thorpe Hall, Rudston, East Yorkshire	1932
DAVID MCJERROW, Highfield, Lockerbie, Dumfriesshire	1933
Sir REGINALD MACLEOD OF MACLEOD, K.C.B., Dunvegan Castle, Isle of Skye	1890
Rev. WILLIAM H. MACLEOD, B.A.(Cantab.), Fiunary, Shandon, Dumbartonshire	1907
HEW MORRISON, LL.D., 12 Blackford Road, Edinburgh	1882
WILLIAM NAISMITH, C.A., 57 Hamilton Drive, Glasgow	1905
A. WEBSTER PEACOCK, 4 Bruntfield Terrace, Edinburgh	1913
Major J. ROBERTSON REID, M.D., Gatesgarth, Newby, Scarborough	1933
J. HUBERT ROBERTS, F.R.G.S., F.S.I., F.A.I., 61 Wind Street, Swansea	1914
HAROLD H. L. SANDS, F.S.A., 16 Portland Court, Great Portland Street, London, W. 1	1930
Sir MALCOLM SMITH, K.B.E., Clifton Lodge, Boswall Road, Leith	1923
WILLIAM RITCHIE STEWART, Merrick, Dalmellington, Ayrshire	1920
CECIL WHITE, 23 Drummond Place, Edinburgh	1884
JAMES WILKIE, B.L., S.S.C., 108 George Street, Edinburgh	1908

The Meeting resolved to record their sense of the loss the Society had sustained in the death of these members.

The President, Sir George Macdonald, K.C.B., LL.D., delivered the following Anniversary Address:—

For many years the Society has been in the way of celebrating the Festival of its Patron Saint by listening to and formally approving the Report which it is required to present each year to the Board of Trustees, and at the same time by endorsing the statement of accounts. To inflict a Presidential Address upon those who take the trouble to attend the Annual Meeting may therefore seem to some of you an uncalled-for innovation. But the change has not been made without good reason. In the first place, the expansion in our numbers has complicated our finances, and it is no longer possible for our Treasurer, capable as he is, to produce a balance-sheet with the dexterity of a conjurer who is extracting a rabbit from a hat. His statement will be circulated to you shortly, and in due course you will have an opportunity of pronouncing your verdict upon it. In the second place, for the sake of administrative convenience the Board of Trustees has asked us to alter the date of our Report, so that the period which it covers has ceased to be the interval that elapses between one St Andrew's Day and another. Thus anything which could be read to you this

afternoon would necessarily be incomplete. In the circumstances the Council were of opinion that we should be well-advised to conform to the practice that prevails in kindred societies, where it is usual for the Chairman to inaugurate the work of the session by offering some observations of a more or less general character. Moreover, the innovation is not really an innovation at all. It is the revival of a custom which was initiated by our founder, Lord Buchan, and which was observed with almost unbroken regularity until the "seventies" of last century, when the growing bulk of the Annual Report unceremoniously ousted its rival.

This explanation will, I trust, be accepted as sufficient. But I have a personal apology to offer to two of my colleagues in office. When I turned to the earlier volumes of the *Proceedings*, in search of guidance as to the line I ought to follow, I was somewhat disconcerted to find that I had unwittingly agreed to trespass upon ground that was wont to be reserved for others. In asking me to deliver the Address, the Council had forgotten that no President has ever before assumed the rôle I am at the moment endeavouring to fill. From the days of Lord Buchan onwards the duty was always discharged either by a Vice-President—normally the retiring Vice-President—or by the Senior Secretary. Unluckily this discovery came too late to permit of my doing more than express to Lord St Vigean and Mr MacLagan my sincere regret that I should in all innocence have trenched upon what I have no doubt they regard as one of their most cherished prerogatives. I assure them that, should there be any desire to reassert their right a year hence, I shall be only too pleased to give way. The truth, of course, is that in those early times the President was a being who dwelt apart, haunting

"The lucid interspace of world and world,
Where never creeps a cloud, or moves a wind."

Now that he has become a more mundane personality he has perforce to shoulder the responsibility. Nor is the responsibility a light one, for, apart from the three to whom I shall refer in more detail presently, the list of my predecessors includes such distinguished names as those of Sir Daniel Wilson, Lord Neaves, Cosmo Innes, and Dr Joseph Robertson.

I said that I had sought for guidance as to the line I ought to follow. The result was a little perplexing. I could, indeed, borrow Lord Buchan's opening sentence and say that "I rejoice to see so many respectable members of our Society met here." Beyond that, however, there was

an embarrassment of riches. Some of these Addresses well deserve the immortality they have secured by being enshrined in the Society's publications. Lord Buchan's own, for instance, delivered at the first Anniversary Meeting and accessible to us all in Smellie's *Account*, was largely a re-emphasising of his original pronouncement as to the aims of the Society. It is a curious medley of eccentricity and breadth of vision. The Museum and the Library were naturally in the forefront of his programme. Were he with us to-day, he would probably agree that this part of his ambition has been adequately realised. His heart would also be gladdened by the signs of awakening interest in the contents of family muniment-rooms, an interest which found pointed expression the other day in the appeal issued by the Trustees of the National Library. He would be gratified, too, at the progress which has been made towards the completion of some of the larger schemes which he adumbrated, although he might be rather astonished at the extent of the effort which has been required to bring them to fruition. He was actually sanguine enough to believe that a Society, the number of whose members was not to exceed fifty, would be able, unaided, to publish the Journals of the Privy Council and the Great Seal Register. We were also to compile a Statistical Account of the Scottish Parishes—explicit instructions as to this were, in fact, issued some years in advance of Sir John Sinclair's—as well as an Inventory of the Ancient and Historical Monuments of Scotland, a task with which a Royal Commission has been grappling for more than a quarter of a century. Nor was this by any means all. Over and above, we were to be entrusted with the functions that have been so admirably discharged by organisations like the Bannatyne, Maitland, Spalding, and Abbotsford Clubs. Further, had Lord Buchan's grasp been equal to his reach there would have been no need for the Scottish History Society, or even for the newly formed Stair Society, to which, in passing, I should like on your behalf to tender a very hearty welcome.

Yet one more of his many ideas took concrete shape forty or fifty years ago, when the late Mr J. R. Findlay presented to the nation the building in which our Society was provided with what I still hope may prove to be only a temporary shelter. But the National Portrait Gallery, for all its excellence, is not exactly what Lord Buchan would have wished. Normally, only the dead have any claim to be admitted there. What he saw in his dream was a great "Temple of Caledonian Fame," as he called it, in which the living too should have a place. The individuals honoured were to be selected "by ballot, under the purest and strictest regulations," the object being, not merely to prevent

gate-crashing, but "to restore that noble and generous thirst for fame which gave birth to the glorious efforts of ancient virtue and patriotism in Greece and Italy." The use of the word "restore" suggests that then, as now, there were earnest souls, deeply oppressed with a sense of their country's degeneracy and eager to proclaim themselves the apostles of a Scottish Renaissance. Lately I have wondered whether the Board of Trustees has been caught up by the rising whirlwind of nationalism. Or is it a mere coincidence that the authorities of the Portrait Gallery should have chosen this particular moment for a further move in Lord Buchan's direction? All of you may not know, but some of you must, that they are systematically getting together a uniform series of photographs of everyone who is playing any sort of part in the public life of Scotland to-day, and that the policy is to be pursued continuously. No hint is given as to how the choice of subjects is determined. The reticence is clearly wise. It leaves each of us free to cling to the comforting belief that he has been solemnly balloted for by the Board "under the purest and strictest regulations." Seriously, however, the notion is an excellent one. What would not the members of our Old Edinburgh Club give if they could conjure up the veritable features of the worthies who walked these streets three hundred years ago?

I have lingered so long over the earliest Anniversary Address that I can do little more than mention the remaining two, of which I had intended to say something. One of these was that in which Dr David Laing dealt with the early history of the Society in characteristically exhaustive fashion. It was delivered in 1861, but was not printed until almost thirty years later, when it was accorded the place of honour in Volume V. of *Archæologica Scotica*. The other, which was given by Sir James Y. Simpson in 1860, easily holds the record for length. It occupies nearly fifty pages of the *Proceedings*, and is a most readable survey of the whole field of Scottish archæology. In one respect it presents a striking contrast to Lord Buchan's: the province of the Society is much more rigidly delimited. And since 1860 the horizon has tended to contract still further. The growth of knowledge has driven home the lesson that the range of topics to which we confine ourselves to-day is sufficient, or more than sufficient, to absorb the whole of our energies. If we are to get full value for our own work, we must resign ourselves to seeing others take possession of vast tracts of that Promised Land on which our founder gazed, when he got him up into the top of Pisgah and lifted up his eyes. How far are we proving ourselves faithful stewards of the fraction of the heritage which remains?

Before essaying an answer, I must touch for a moment on a feature that runs like a dark thread through all the accounts of our Anniversary Meetings. I mean the catalogue of those whose term of Fellowship had been ended by death in the course of the preceding year. At one time it was usual for the Chairman to give a short biographical sketch and appreciation of each, more particularly in relation to his connection with the Society. As our numbers grew, the list of our annual losses inevitably lengthened, and for a good many years past it has been impossible to adhere to this laudable precedent. The Council has recently had to be satisfied with singling out the more prominent names for special notice in their Report to the Board of Trustees. But the compromise has had its drawbacks. The process of selection was far from easy, and with the best will in the world one could never be certain that one was being perfectly fair. My own feeling is that for the future we should content ourselves with a silent tribute to all alike. Nevertheless on this occasion there is one from whom it would hardly be seemly to part without a brief word of farewell. Sir Reginald Macleod joined the Council nearly half a century ago as Queen's Remembrancer, and he sat on it continuously for eleven years, including two terms as Vice-President. Nor was his power to help us diminished when he was appointed Under-Secretary for Scotland. He never contributed to the *Proceedings* so far as I can remember, and he would certainly have never dreamt of posing as an archaeologist. But it would not have displeased him to know that, when he died, we should be regretfully conscious of the passing of an experienced man of affairs, a sympathetic friend, a genuine Scot, and, above all, a great Highland gentleman.

And now what of our stewardship? To begin with, our position as to numbers gives no cause for disquiet. Since the war the influx of new accessions has been phenomenal. Although the tide has been running rather less strongly during the last year or two, there is as yet no sign of any ebb. But it is obvious that we cannot relax our recruiting efforts if we are to keep our ranks well filled. I am told that on Saturday there were 1047 Fellows on the roll as compared with 1049 on St Andrew's Day last year. That this is not a stage army we can prove by pointing to the large and occasionally crowded attendance at our evening meetings. *À propos* of recruitment, however, there is one thing I should like to say: Who drives fat oxen should himself be fat, but he who is interested in archaeology need not himself be old. When I consider the average age of our contributors I am sometimes inclined to despair of what is likely to happen when the present genera-

tion can no longer be counted upon. Of late we have been cheered by the advent of one or two who have the inestimable blessing of youth upon their side. That is a development for which we are in no small measure indebted to the missionary zeal of the Abercromby Professor. But, grateful as we are to him, we must all of us put our shoulders to the wheel. Let us encourage young people to come about the Museum, and let us help them to look at its contents with understanding eyes. Let us do our best to convince them that there is such a thing as archæology without tears. Only in that way can we hope to revive the spirit which gave birth, a century and a half ago, to the "Minor Society of Scottish Antiquaries," whose records now repose in the Bodleian.¹ Not a little of the seed will fall by the wayside and the cinemas will come and devour it up. But a residue may fall on good ground and may yield fruit that will spring up and increase.

It is of good omen that the outside public is finding the Museum more and more attractive. I believe the attendance would go up by leaps and bounds if we had space to display its treasures in a manner that would make an effective popular appeal. Despite the fact that we are careful to admit only what is of real interest, the congestion is being aggravated year by year. On this occasion we cannot boast of any such sensational acquisition as the Reliquary of St Columba. But we can at all events say that the donations and purchases have been well up to the average both in quantity and in quality—a remark that is true of the Library as well as of the Museum. You will find them catalogued in the *Proceedings*. Although nothing of first-rate importance is included, it would be ungracious not to recall that a medal, struck to commemorate George IV.'s historic visit to Edinburgh, was presented to us by Her Majesty the Queen, whom we were privileged to associate with our Royal Patron in the congratulations conveyed to him on his Silver Jubilee. Those of you who have not been round the rooms for some months may like to know that the furnishing of the Comparative Gallery has been completed by the installation of a new upright floor-case, and that most of the parchments and manuscripts on public view have been cleaned and, where necessary, repaired by H.M. Stationery Office.

Volume LXIX. of the *Proceedings*, an advance copy of which now lies on the table, will be issued to you shortly. Unless I am mistaken, it maintains the high standard that we have learned to expect. Speaking from memory, I am a little doubtful whether I could honestly recommend it on the ground that it is "the mixture as usual." I have

¹ See *Proc.*, liii. (1918-19) pp. 168 ff.

an impression that the prehistoric flavour is more pronounced than it has sometimes been. If so, you may take it from me that the preponderance is accidental. We must remember, too, that it is to its prehistory that Scotland owes most of its archaeological reputation. Articles which are—shall I say?—less sprightly in tone than the more mediævally minded among us might desire will be carefully and respectfully studied across the Border and abroad. In connection with the *Proceedings*, I am glad to be able to announce that the usefulness of the series as a whole will presently be enhanced by the publication of an Index to Volumes XXV.—XLVIII. This is long overdue. But, in fairness to those immediately concerned, it ought to be said that the delay should not be set down to slackness or want of zeal. During the twenty odd years in which it had been in preparation it had several times passed from the hands of one compiler to another. Each newcomer had had his own ideas, and each had deemed it his duty to try to add a touch of perfection to a plan that was already too elaborate when he arrived upon the scene. It is therefore hardly surprising that, by the time it was finished, the whole structure should have collapsed under its own weight. The cost of printing would have been prohibitive and the multiplicity of entries merely confusing. But it would have been out of the question to wait longer. Accordingly the Council arranged for the production of something very much simpler. It is less complete than they hope that future Indexes will be. Still, I have no doubt it will be serviceable, and I trust that when it appears you will not scrutinise it too critically, but will remember that it is a *pis aller*.

Returning for a moment to the prehistorians, I for my part would gladly see them accorded the fullest measure of elbow-room. But to the newcomers among them I would venture, with all respect, to offer a word of advice. Let them not be too zealous in supplying the Junior Member of Parliament for Oxford University with ammunition for the Word War which he has been waging so persistently for months in the columns of *Punch*. Unless they resist the temptation, they will find themselves dropping into "jargon" as readily as Silas Wegg dropped into poetry. I have more than a suspicion that the sort of thing I am warning them against is dictated by a lurking fear that to use the King's English would be unscientific. I can recall the day when the very same objection was urged against the introduction of lantern illustrations at the Society's meetings. It seems to me just as reasonable in the one case as in the other. In the physical and natural sciences, and also in medicine, new names have had to be invented or adopted

for new or unfamiliar things as well as for things which it would hardly be polite to refer to in familiar fashion, and round these there has inevitably grown up a highly artificial type of language, intelligible only to the specialist. In the science of archæology it is, or ought to be, otherwise. If we exclude human and animal remains, which have to be described as an anatomist would describe them, the material to be handled consists very largely of everyday objects. When their everyday names will serve, why should we go out of our way to search for uncouth substitutes? Precision, of course, is essential. But to be precise we do not need to be pedantic. The practical demonstration of this is not the least of the many debts that Scottish archæology owes to Dr Joseph Anderson. Let us be true to the tradition he established. When we have a simple thing to say, let us avoid wrapping it up in a cloud of words, little likely to be understood of the people. If we wish to draw attention to the archæological consequences of Britain's geographical situation, why not speak of it as lying on the outer fringe of Western Europe, instead of writing about "its peripheral position in relation to the occidental segment of the adjacent continental mass"? For archæologists to indulge in flights of that kind savours of ingratitude to the most valuable of their instruments. Of all men they should surely be the last to shrink from calling a spade a spade.¹

This brings me naturally to one of our most important activities. In the new volume you will read of Professor Childe's interesting excavations at Finavon fort and of the opening up of a Bronze Age cemetery in Dumbartonshire. You will read, too, of further explorations in the island of Rousay, carried out at his own expense by the enlightened proprietor, who has once more invited the co-operation of Dr Callander. Further, through the medium of two of our own Fellows you will be vouchsafed a glimpse into the operations of that powerful engine, H.M. Office of Works, in Aberdeenshire and among the mists of Thule. Our own funds have not been very largely drawn upon for such purposes during the last twelve months, but we have financed at least one enterprise, of the fruits of which you will hear in the coming winter. I doubt whether it is so widely realised among ourselves as it ought to be that the Society has now at its command resources which

¹ Lest it be thought that the apprehensions I have expressed in the foregoing paragraph are exaggerated, I am tempted to quote an actual example of 'technical' language, sent to *The Times* by Sir Francis Dyke Acland, while these sheets were passing through the press. The writer is speaking of the habits of a moth: '*It would appear from what evidence is available that the act of oviposition is immediately stimulated by the crepuscular diminution in the intensity of illumination, and the rise in relative humidity as the diurnal temperature decreases.*' Sir Francis's translation could hardly be improved upon: 'Egg-laying is stimulated by twilight and the dampness of evening.'

allow of its furnishing substantial assistance to modest and well-considered schemes of excavation. It is not so much the money that we want as the men—or the women. Properly guided, the youthful enthusiasm which I should like to see kindled would have an ample outlet in this direction for its energies. Under the conditions imposed by the Scottish climate, the day-to-day supervision of digging is hardly a task to be faced by the aged and infirm, a category on the brink of which some of us are but too well aware that we are trembling. But we are still young enough to pass on the torch, if only our little band can be reinforced before we are too decrepit.

Thus far my observations have been confined to domestic affairs. Taking a wider view, I may anticipate a time-honoured declaration that will probably be made once again at Westminster to-morrow, and assure you that "my relations with foreign powers continue to be friendly." We look confidently to the Board of Trustees for such help as they can give us, and it is safe to say that the cordiality of the understanding which subsists is never likely to be impaired so long as communication is maintained through a channel so sympathetic as the representatives whom they send to our Council. Behind the Board of Trustees looms the formidable figure of the Treasury, and here too we are as fortunate as we could hope to be, inasmuch as we have a King's Remembrancer who knows how to temper the wind to the shorn lamb, and upon whom we can always rely to make a perfectly fair statement of a reasonable case. Quite recently, again, we have made contact, and contact of a very satisfactory kind, with an infant but important body whose functions are in some respects not altogether unlike our own. We have arranged to deposit on permanent loan in the National Library our copy of the First Folio of Shakespeare, as well as a number of other books and a large collection of manuscripts which are much more likely to be consulted by students of history and literature than by students of antiquities. As a mark of gratitude, one of the Library Trustees, Lord Clyde, has reciprocated by sending us the only object in his possession which could appropriately be placed in our care—a Covenanting flag. But there are other ways in which the Trustees can help us, and I feel certain that they will do so if opportunity arises, for they have shown a very warm appreciation of the action we have taken. In similar fashion we have transferred to the custody of the authorities of the General Register House not a few Scottish Charters and analogous documents, which will be more at home among the national archives than with ourselves. Of the Royal Commission on Ancient and Historical Monuments I need say nothing

except that the advantages of close association are mutual. In the event of any difference of opinion with the Commissioners, I can promise that your President will lose no time in having a heart-to-heart talk with their Chairman.

There remain two independent Government Departments on whose ministrations we are dependent for the comfort of our daily lives. While the Stationery Office see to the binding of our books, the Office of Works is pledged to keep us wind-and-water tight and to look after our equipment. We are grateful to them both. And with the latter Department there is another bond. Within the last quarter of a century its activities have overflowed into a sphere which, in so far as it was not a No-Man's Land, had previously been regarded as our own. What its Ancient Monuments Branch, under the inspiration and control of Sir Charles Peers, has done for our abbeys and castles is beyond praise, and there is abundant evidence that this is being more and more widely appreciated by the community at large. It is, however, with the prehistoric side that we are most intimately concerned. Rivalry is out of the question. There can be no competition between ourselves and a vast organisation like the Office of Works with Government cash and Government credit at its back. As well might the cave-dweller with his deer-horn pick presume to match his puny efforts against the driving force of a modern steam navy. But there is room and to spare for friendly collaboration. Some years ago your Council ventured to approach the Department with an offer of assistance in the selection of supervisors. The offer was most readily accepted, and the outcome of it was that Professor Childe went to Skara Brae, Mr A. O. Curle to Jarlshof, and the late Mr Craw to Aikerness.

The position to-day appears to be altered. In recent cases of the kind the Council has not been asked to advise in the matter of supervision. Whatever the reason for this, the change is, in my view, much to be regretted. All that I know for certain is that in Orkney, at least, there has of late years been much more than "a certain liveliness" in the matter of prehistoric excavation. Through Mr Richardson's kindness I was able to see something of what is going on at half a dozen different places, some of them sites of first-class importance. I am not going to court arrest under the Official Secrets Act by attempting to lift the veil prematurely now, but I would venture to express the hope that the reports will be published with the same promptitude and thoroughness as Professor Childe and Mr Curle have displayed. Whether these prehistoric remains are likely to lend themselves to conservation, in the same sense as the abbeys and castles do, is to my mind rather doubtful.

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Skara Brae is finished, and the treatment there has indisputably been most successful. There are, however, other cases in which I have an uneasy feeling that all that the most strenuous and well-intentioned exertions can achieve will be to provide the archaeologist of A.D. 4000 with a problem that he is likely to find insoluble. But that is for the Office of Works to consider. It is no part of our Society's duty to take thought for so distant a morrow. We look to the past, not to the future.

On the motion of Sir Herbert Maxwell, Bart., K.T., it was resolved that the address should be printed in the *Proceedings*.

MONDAY, 9th December 1935.

SIR GEORGE MACDONALD, K.C.B., President,
in the Chair.

A Ballot having been taken, the following were elected Fellows:—

- MISS ELIZABETH TURNER BELL, J.P., F.E.I.S., 58 Eskbank Road, Logie, Dundee.
COLIN HUGH DAKERS, M.C., Malayan Civil Service, Chinese Protectorate, Kuala Lumpur, F.M.S.
HECTOR HENRY MACCOLL, O.B.E. (Mil. Div.), Knight of the Royal Order of Vasa, 2 rue Litolf, Paris, xvi^e.

The following Donations to the Museum received during the recess, from 13th May to 30th November, were intimated, and thanks voted to the Donors:—

(1) By HER MAJESTY THE QUEEN.

Silver Medal of King George IV. struck in commemoration of his visit to Scotland: *obv.* head of the King, laureated, to left, GEORGE IV. ASCENDED THE BRITISH THRONE Jan. 29, 1820; *rev.* above, a spray of roses, shamrocks and thistles; round the edge, SCOTLAND HAILS WITH JOY THE VISIT OF HER SOVEREIGN, 1822.

(2) By ANGUS MACPHERSON, 79 Henderson Row, Edinburgh.

Two Communion Tokens: Leslie Free Church, 1844, and Lossiemouth U.P. Church, 1850.

(3) By A. D. LACAILLE, F.S.A.Scot.

Three small Stone Knives with battered backs, measuring $1\frac{1}{16}$ inch, $\frac{15}{16}$ inch and $\frac{13}{16}$ inch in length, said to have been used for subtercision by Australian aborigines in the Sydney district, New South Wales.

(4) By the Kirk Session of Livingston, through Rev. JAMES AITKEN, Minister of the Parish.

Block of Sandstone, rudely dressed to oblong shape, measuring $10\frac{3}{8}$ inches by $8\frac{7}{8}$ inches by $3\frac{1}{4}$ inches, with three oblong cavities, $1\frac{1}{8}$ inch deep, cut in the top, possibly used in a smithy for holding nails. Found in an extension of the Kirkyard, on the north side of Livingston Church, at the east end.

(5) By ISAAC ROSENBLOOM, F.S.A.Scot.

Two steel Watch Chains with Watch Key attached.

Six Silver Prize Medals: (1) *obv.* SCHOOL OF MEDICINE/ SURGEON'S SQUARE/ EDINBURGH/ SESSION 1840-41; *rev.* PRESENTED BY A. JARDINE LIZARS, M.D./ F.R.C.S.E./ TO/ MR J. BRAMWELL/ FOR EXCELLING IN/ THE CLASS OF/ PRACTICAL ANATOMY. (2) *obv.* MEDICAL SCHOOL/ BROWN SQUARE/ EDINBURGH/ WINTER SESSION 1834; *rev.* PRIZE MEDAL/ AWARDED BY/ A. J. LIZARS, F.R.C.S.E./ TO/ MR JOHN M'LAGAN/ FOR EXCELLING IN THE/ EXAMINATIONS/ ON/ ANATOMY. (3) *obv.* SOCIETAS MEDICA HUNTERIANA EDINENSIS, round edge; *sessio*/ 1834-5/ PALMAM/ QUI MERUIT/ FERAT; *rev.* PRIZE MEDAL/ PRESENTED/ TO/ JOHN M'LAGGAN ESQ/ BY THE/ HUNTERIAN SOCIETY/ AS A TESTIMONIAL OF THE TALENT/ DISPLAYED BY HIM/ IN ITS DISCUSSIONS. (4) *obv.* EDINBURGH/ 1st AUGUST/ 1839; *rev.* PRESENTED/ BY/ MR JOHN-STONE/ TO/ MISS CARTER/ DUX/ HIGHEST CLASS OF/ ARITHMETIC. (5) *obv.* THE/ REWARD/ OF MERIT/ EDINBURGH/ 4th AUGUST/ 1813; *rev.* PRESENTED/ BY/ MR KNIGHT/ TO/ MASTER JOHN FORMAN/ DUX/ OF THE/ HIGHEST CLASS. (6) *obv.* A hand holding a quill pen; *rev.* TO/ JOHN FORMAN/ THE BEST WRITER/ IN THE 3rd CLASS IN/ MESSRS LAING AND MUIR'S/ ACADEMY/ 1817.

(6) By the Trustees of Sir ARTHUR J. CAMPBELL ORDE, Bart.

Eight round-bottomed Neolithic Urns, all more or less restored, of hard brown and black ware, upper part of a Beaker and other fragments of pottery, chiefly Iron Age, also two Hammer-stones and a piece of Pumice found in and near the ruined segmented cairn on Cletraval, North Uist, by W. Lindsay Scott, F.S.A.Scot. (See *Proceedings*, vol. lxix. p. 480.)

(7) By JAMES S. RICHARDSON, F.S.A.Scot.

Wooden Butter Mould, of circular shape, bearing a fleur-de-lis pattern on the face; and a

Wooden Wheel Mould for pastry, bearing floral designs. From Montrose.

Axe-hammer of Steatite, with a straight cutting edge, a rectangular butt, and a small hole bored from both edges; the top curves downwards from the front to the back, and on the under side are broad transverse grooves in front of and behind the perforation, which is thus surrounded by a collar of rectangular shape on the outside; it measures $3\frac{1}{4}$ inches in length, $2\frac{3}{16}$ inches in breadth at the cutting edge, $1\frac{1}{2}$ inch square at the butt, and $1\frac{5}{8}$ inch in thickness opposite the perforation, found at the Broch of Virkie, East shore, Shetland.

Two Bools (marbles) of red and whitish clay, measuring $\frac{3}{4}$ inch and $\frac{11}{16}$ inch in diameter, found near Gatehouse-of-Fleet, Stewartry of Kirkcudbright.

(8) By T. L. STIRLING, 34 Haymarket Terrace, Edinburgh.

Three notched Flakes of Flint and one of green Chert (*encoches*), broken across the notch, possibly in the making of micro-burins, measuring $\frac{13}{16}$ inch, $\frac{13}{16}$ inch, $\frac{5}{8}$ inch and $\frac{7}{16}$ inch in length, from Monksford Field, Dryburgh Mains, Berwickshire.

(9) By Dr T. M. SAXBY, Halligarth, Unst.

Cleaver-like implement of Stone, measuring $9\frac{1}{2}$ inches in length, $3\frac{3}{4}$ inches in breadth, with a hollow at one end for the grip. Found at the bottom of a moss at North Dale, Haroldswick, Unst, Shetland.

(10) By WALTER G. GRANT, F.S.A.Scot.

Triangular Knife and three Scrapers of light-coloured Flint, from Hullion, Rousay, Orkney.

Flint Scraper from the stalled cairn, Knowe of Yarso, Rousay, Orkney.

Battered back Point of Flint, with a thick white patina, measuring $1\frac{3}{8}$ inch in length, and $\frac{1}{2}$ inch in breadth; half of a finely formed leaf-shaped Arrow-head, of brown Flint; Scraper of white Quartz; fifteen Scrapers of grey and brown Flint; Side Scraper of white Flint, and six worked Flints. Found on News (Newhouses), Hullion, Rousay, Orkney.

Two leaf-shaped Arrow-heads of brownish yellow Flint, (1) measuring $1\frac{9}{32}$ inch by $\frac{9}{16}$ inch, found near the stalled chambered cairn, the Knowe of Bigland, Faraclet, Rousay, Orkney; (2) measuring $1\frac{3}{32}$ inch by $\frac{1}{32}$ inch, from the field above Midhowe Broch and Cairn, Westness, Rousay.

Three-legged Skillet of Bronze, measuring $6\frac{1}{2}$ inches in height, and 5 inches across the mouth; the legs are $2\frac{1}{2}$ inches in length and the flat handle 5 inches.

Communion Token: Rousay United Associate Congregation, 1834.

(11) By Mr ROBERTSON, through FRED A. FERGUSON, F.S.A.Scot.

Knife, and a pointed object, worked along one side, of yellow Flint, found in a field near Kirkton, at the foot of Lochlee, Angus.

(12) By Mrs R. W. NAPIER, 43 Warrender Park Terrace, Edinburgh.

Lead Medal commemorating the passing of the Reform Bill, 1832.

(13) By Mr NISBET, Baliasta.

Perforated Stone, measuring $2\frac{3}{4}$ inches by $1\frac{7}{8}$ inch by $\frac{7}{8}$ inch, and a flat oval Pendant of Stone with a picked perforation countersunk from both sides, near one end, measuring $5\frac{7}{8}$ inches by $3\frac{3}{8}$ inches by $\frac{7}{8}$ inch, from Baliasta, Baltasound, Unst, Shetland. The latter is said to have been hung on the foreheads of cattle to keep them from bolting. The signs of wear at the perforation seem to bear out this attribution.

(14) By A. W. TAIT, Vementry.

Segment of Ox-horn, measuring $1\frac{1}{2}$ inch in length and $1\frac{1}{16}$ inch in greatest diameter, with a large perforation on its longer side, and a bluntly pointed Bone Object, measuring $2\frac{9}{16}$ inches long, with a longitudinal slot, measuring $\frac{5}{8}$ inch by $\frac{3}{16}$ inch, near the point, and a small indentation at the opposite end. Both were discovered 1 foot below the surface of a peat moss, at Vementry, Bixter, Shetland; the pointed object was found inserted in the perforation in the horn object.

(15) By ROBERT FORSYTH, Enfield Cottage, Portobello.

Part of a white silk ribbon from Queen Victoria's wedding cake.

(16) By MRS JAMES T. RICHARDSON, 7 Tantallon Terrace, North Berwick.

Policeman's Rattle, and a Beetle of Wood measuring 15 inches long and $3\frac{1}{2}$ inches in diameter, from North Berwick; Wooden Jelly Ladle with a hooked handle, measuring $15\frac{1}{2}$ inches long, from Berwickshire; Toddy Ladle with a double twisted handle and ring end, carved out of one piece of wood, about 1870, by Willie McNee, Lochearnhead.

(17) By JAMES CURLE, LL.D., F.S.A.Scot.

Relics from the Roman Fort at Newstead.

Bronze or Brass Objects.

Bow-shaped Fibula, wanting the pin, the catch-plate broken; bow of harp-shaped Fibula, with a floriated knop near the top of the bow; knee-shaped Fibula, half of head wanting; penannular Brooch with rounded terminals obliquely fluted, retaining part of the pin; two plain Rings; halves of two plain Rings; terminal of the handle of a Patera; Mount with two concentric raised mouldings on the top and a central perforation and two rivet holes for attachment; two hollow hemispherical Mounts, with a pin on the under side for attachment; flat, domed, hollow Mount, the under side filled with solder; hollow hemispherical Mount; Strap with hooked end and two pins on the under side for attachment; part of a thin narrow Strap; Pin of Brooch formed of thin twisted sheet metal; small piece of Plate with two straight parallel mouldings and a partly punched rivet hole between them.

First Brass of Hadrian; Second Brass of Hadrian, A.D. 119; Second Brass of Domitian, A.D. 86; Second Brass of Antoninus Pius, A.D. 155.

Rounded rod of Lead, measuring $4\frac{5}{8}$ inches in length and $\frac{1}{4}$ inch in diameter.

Iron Objects.

Triangular-bladed Arrow-head; Arrow-head with socket; Spear-head with imperfect socket; Stylus; Key with T-shaped lifter; Key, L-shaped, with a loop at the end of the handle; broken Key (?), L-shaped, with broken loop at the end; Bar with a large perforation at one end and broken at the other, measuring $11\frac{5}{8}$ inches in length; Bucket Handle, broken in two, with recurved ends; broken spatulate Object, the blade

bent, with a ring at the end of the tang; Object with a loop at one end and another $2\frac{1}{2}$ inches from the first, the remains of a pin sticking in it; L-shaped object, much corroded and twisted; L-shaped bar, measuring $9\frac{1}{8}$ inches in length; Hoop of a tub or barrel measuring $13\frac{1}{4}$ inches in diameter and $1\frac{1}{8}$ inch in breadth.

Playing-men: three of black glass, measuring $\frac{3}{4}$ inch, $\frac{11}{16}$ inch and $\frac{9}{16}$ inch in diameter, one of blue glass, $\frac{5}{8}$ inch in diameter, and two of milky white glass, $\frac{5}{8}$ inch and $\frac{3}{4}$ inch in diameter.

Two melon-shaped Beads and parts of two others of green and blue vitreous paste, and part of another of blue glass.

Lead Whorl of domical shape; Stone Whorl; Stone Disc; Sling-stone; Rude Whetstone, measuring $6\frac{15}{16}$ inches in length; half of a Sandstone Weight, of flattened pear-shape, measuring $3\frac{1}{2}$ inches in height and $3\frac{3}{4}$ inches in diameter; flattened spheroid of reddish Sandstone, with a partial perforation on the top; two fragments of Plaster, the first painted red outside; fragments of bottoms of Wooden Vessels; two Wooden Tent-pegs; Knife-shaped Wooden Object, measuring $12\frac{1}{4}$ inches in length, the tang $6\frac{1}{4}$ inches in length, covered to a large extent with vivianite; part of the Spoke of a Wheel, of oval section; nine pieces of wood, some being Staves of a bucket or barrel; and turned Base of a Wooden Vessel, measuring $1\frac{1}{2}$ inch in diameter.

Plain Cup, measuring $3\frac{5}{8}$ inches in diameter and $1\frac{5}{8}$ inch in height, Drag. 27, and parts of four Bowls, of Samian ware, terra sigillata.

Cooking-pot, restored, measuring $10\frac{3}{8}$ inches in height, 5 inches in diameter at the mouth, 9 inches at the shoulder, and $4\frac{1}{8}$ inches at base, and parts of two flat Dishes with everted rims, of black ware.

Handle and part of the mouth of an Amphora, with maker's mark—MON.

Seven Boar Tusks; part of a Skull and Antlers of a red-deer, the beams and brow tines completely sawn through; short section of the beam of an Antler, with parts of two tines sawn through; Tine of red-deer, sawn and cut; part of Tine of red-deer with a socket cut out in one end; Oyster-shell; also specimens of German Samian ware from Vindouissa and Stockstadt.

(18) By ALEXANDER M. COWIE, M.B., C.M., F.S.A.Scot.

Two Glass Sky-lights, moulded to the shape of tiles, for insertion in roofs of byres and stables; Slab of Slate with two openings cut out to receive glass sky-lights.

Two Pony-boots of Leather, used while mowing a lawn. All from Dufftown, Banffshire.

(19) By WILLIAM S. MALLOCH, F.S.A.Scot.

Five Communion Tokens, Colinton, 1825.

(20) By ANDREW CHEYNE, Longfield.

Stone Adze curved lengthwise, measuring $7\frac{3}{8}$ inches in length, $2\frac{9}{16}$ inches wide at the cutting edge, and $\frac{7}{8}$ inch thick, found at Longfield, Dunrossness, Shetland.

(21) By JEREMIAH HARPER, East shore of Virkie, Dunrossness, Shetland, the finder.

Stone Maul with rounded ends and encircled with a broad smooth groove, from the Broch of Virkie, East shore.

(22) By WILLIAM HARPER, East shore of Virkie, the finder.

Bronze Ring, crescentic in cross-section, measuring $1\frac{5}{16}$ inch in diameter and $\frac{3}{8}$ inch in thickness; Stone Whorl; Bead or Whorl of Steatite, and a discoid Bead of Slate, with a small perforation, not centrally placed, from the Broch of Virkie, East shore.

(23) By RAIMONDO N. DE PINTO, F.S.A.Scot.

Ebony Baton of the Leith Special Constables Association, No. 123, with a silver capsule on each end, measuring 4 inches in length and $\frac{9}{16}$ inch in diameter.

Silver Medal of Bath Street (Leith) Quoiting Club. *obv.* BATH STREET/ QUOITING CLUB/ 1st MAY 1852.

(24) By Miss BLAIR, Glebe Cottage, Gullane.

Stone Cresset, measuring $10\frac{1}{2}$ inches by 10 inches by $4\frac{1}{2}$ inches, with four rectangular cavities on the upper face.

Arm of a free-standing Cross, measuring $13\frac{3}{4}$ inches by $7\frac{3}{4}$ inches by $6\frac{3}{4}$ inches, showing a horizontal S-shaped scroll within a flat moulding bearing a single zigzag pattern. Both from the neighbourhood of the old church at Gullane.

(25) By THOMAS D. BATHGATE, F.S.A.Scot.

Mounting cast in white metal in the shape of a Maltese cross, measuring $3\frac{7}{8}$ inches across the arms, found at Braemore, Caithness.

(26) By DAVID STRATHIE, Lintongrange.

Two Scrapers of grey Flint, found on Lintongrange Cottage Farm, West Linton, Peeblesshire.

(27) By JOHN M. CORRIE, F.S.A.Scot.

Whetstone made of a water-worn piece of Slate, perforated at the broad end, from Newstead Roman Fort, S. Annexe.

Three Burnishers formed of small quartz pebbles: (1) measuring $1\frac{1}{8}$ inch by $\frac{3}{4}$ inch by $\frac{3}{4}$ inch, imperfect, from Newstead S. Annexe; (2) measuring $1\frac{5}{8}$ inch by $\frac{1}{2}$ inch by $\frac{3}{4}$ inch, with two ground facets, from Dryburgh Mains, Orchard field; (3) measuring 1 inch by $\frac{3}{4}$ inch by $1\frac{5}{8}$ inch, from Ancrum Mains, Roxburghshire.

Fine Borer of grey Flint, measuring $1\frac{5}{8}$ inch in length, and another pointed at both ends, measuring $1\frac{5}{8}$ inch by $\frac{9}{16}$ inch, from Fairnington, Kelso, Roxburghshire.

Three Scrapers of grey Flint, two from Crichton, Midlothian, and one from Walkerstone, Gorebridge, Midlothian.

Five notched Flint Flakes (*encoche*s): two from Whittrighill, Berwickshire, one from Fairnington, Roxburghshire, and two from Dryburgh Mains, Orchard field, Berwickshire.

Small fragment of a Jet Ring, one edge everted, from Ardeer Sands, Ayrshire.

Knee Fibula of Bronze, with part of the spring cover wanting, from Newstead Roman Fort.

(28) By Miss BETTY RICHARDSON, 14 York Place, Edinburgh.

Small Horn Cup, measuring $2\frac{3}{8}$ inches in height, with the date, 1746, on the side, and the initials A and F with a thistle between on the bottom, all incised. Said to have been found on the battlefield of Culloden.

(29) By ANGUS GRAHAM, M.A., F.S.A.Scot.

Piece of Pumice ground on two sides to form an acute angle, found in a burnt mound at Hawall, St Andrews, Orkney. This mound contains stone structures, and a number of rude stone implements, with at least one hammer-stone, were found in it.

* Two Quartz Scrapers, from Ward Hill, Quendale, Shetland.

(30) By MOIR CARNEGIE, 2 Blackheath Park, London, S.E. 3.

Silver-gilt Quoit, inscribed PRESENTED BY THE MARQUIS OF AILSA, K.T., TO THE KILMARNOCK UNION QUOITING CLUB,

and bearing the names of winners from 1863 to 1871, measuring $3\frac{1}{16}$ inches in diameter, bearing the Glasgow hall-mark for 1863.

(31) By C. S. T. CALDER, F.S.A.Scot.

Fragments of a very coarse Vessel of Pottery, yellowish on the exterior and grey inside. The ware is hard and contains broken stones. The vessel is plain and has been bucket-shaped; it has been at least 13 inches in diameter at the mouth. The rim, which is flattened on the top, is $\frac{1}{2}$ inch thick, and the wall rapidly thickens to 1 inch. On the outside, in parts, are traces of soot near the rim. Found on the farm of Kirbuster, Birsay, Orkney.

(32) By H. E. KILBRIDE-JONES, F.S.A.Scot.

Small perforated Disc of Slate, irregularly oval in shape, measuring $1\frac{1}{8}$ inch in greatest diameter, the small hole countersunk from both sides, found near the Stone Circle at Loanhead, Daviot, Aberdeenshire.

(33) By JAMES H. W. LAING, Oxford University Press, London.

Double Snuff-pen (spoon) of brass for lifting snuff to both nostrils at once, from Angus.

Esquimaux Dagger with a finely flaked leaf-shaped stone point whipped into the wooden shaft, total length $12\frac{1}{8}$ inches.

Barbed and stemmed Arrow-head, imperfect, from Lumphanan, Aberdeenshire, one from Muir of Mair, Blairgowrie, Perthshire, and one of leaf-shape from Carsie, Blairgowrie; all of Flint.

Leaf-shaped Arrow-head of white Quartz; two Scrapers of Chalcedony; thirty-eight Scrapers, Halbert-shaped Implement with a notch on one side, and five Knives, of grey, brown and yellow Flint; Slate Button with two perforations and ornamented with radial incised lines on both faces; all found on Tents Muir, Fife.

(34) By HUGH CLARK, Edgarville, Glenluce.

Portion of the upper part of the head of a Cross of the Whithorn type, found in a field dyke at Kilncroft, Glenluce, 200 yards north of the parish church. (See subsequent communication by the Rev. R. S. G. Anderson, F.S.A.Scot.)

(35) By Miss HODGSON, Newby Grange, Carlisle.

Two rim fragments of a Mortarium of red clay, from the Roman Fort at Birrens, Dumfriesshire.

(36) Bequeathed by MALCOLM INGLIS, Glasgow.

Two-handled Silver Cup, measuring 9 inches in height, presented by the New West Bow Militia Association to Mr George Ingles, their Treasurer, 25th August 1808. The cup bears the hall-marks of Edinburgh, date letter for 1806-7, head of George III., and maker's stamp PC & S (Cunningham & Simpson). It bears the inscription—GIFTED/ 25th AUGUST 1808/ BY A GENERAL MEETING OF THE/ NEW WEST BOW MILITIA ASSOCIATION/ TO/ MR GEORGE INGLES/ THEIR TREASURER/ IN TESTIMONY OF THEIR HIGH SENSE OF HIS/ FIDELITY AND ACCURACY/ IN THE ARRANGEMENT OF THEIR/ FUNDS. An Account Book of the Association was also bequeathed.

(37) By THE DIRECTORS OF THE BUCCLEUCH ESTATES, LIMITED.

Rude Pillar of Sandstone, bearing an Early Christian inscription in Latin, found in the bed of the river Liddel, near The Brox, Newcastle-on-Tyne, Roxburghshire, by Mr A. W. Somerville and his son, August 1935. (See subsequent communication by Sir George Macdonald, President.)

(38) By Miss EUPHEMIA CAMERON, Dunraven, Strathpeffer.

Flagon of dark olive Glass, splashed with spots of opaque white paste, with globular body and long neck, measuring $12\frac{1}{2}$ inches in height, and 9 inches in diameter.

(39) By Sir GEORGE MACDONALD, K.C.B., President.

Fourteenth-century Earthenware Jug, measuring 13 inches in height, $4\frac{3}{4}$ inches in diameter at the mouth, $8\frac{1}{8}$ inches at widest part, and $5\frac{7}{8}$ inches across the base. On one side of the mouth is a small spout and almost under it is a bearded face, and arms and hands—the arms projecting to form two small handle-like bows and the hands connecting with the body. The handle, which is placed on the opposite side of the vessel, has three longitudinal grooves on the outside of the bow, and, where it joins the body below, widens out and shows a hollow on either side made by the thumb. Round the bottom are thumb-made depressions. The jug is encircled by a slightly raised moulding under the neck. The vessel is covered with a green glaze, and depending from the moulding are rough ladder-like designs in a brown glaze. Found at Perlewan, Dalrymple, Ayrshire, in 1833. (See *New Statistical Account. Arch. Colls. of Ayr and Wigton*, vol. i. p. 80.)

Fragment of the lip of a Mortarium of red ware, from Inveravon.

(40) By GEORGE VEITCH, F.S.A.Scot.

Fish-slice of Silver, bearing the maker's mark C F (Charles Fowler), the town marks ELGIN, and an ecclesiastic with an indeterminate object in his right hand and a crozier in the left; on the front of the top of the stem are the initials W.S.B.

The following Purchases for the Museum were intimated:—

Highland flat ring Brooch of Brass, measuring $3\frac{11}{16}$ inches in diameter, the ends of the ring overlapped and riveted. There is a notch on both edges, near the extremities, to receive the turned-over loop of the pin, which has been hammered out of a strip of plate brass. On the front are three Maltese crosses separated by narrow radiating oblong panels alternately plain and hatched with zigzags and criss-cross lines, all very crudely incised. On the back are several simple crosses and lines made with a wriggling-iron. The brooch is covered with a yellowish green patina, and the outer edge of the ring is chipped. Found on the shore of Loch Morlich, Inverness-shire.

Horn Cream Skimmer and a Horn Spoon with a short handle, from Aberdeenshire.

Flanged Bronze Axe, palstave, the cutting edge broad and ends recurved, measuring $5\frac{9}{16}$ inches in length, $\frac{3}{8}$ inch in greatest thickness, and $2\frac{3}{4}$ inches across the cutting edge, the surface pitted and very slightly patinated. Found in a field during agricultural operations on Upper Dounreay, Reay, Caithness, not far from the cairns on Cnoc Freisceadain.

Two Communion Tokens: Mull, Brook, 857, and Kilninian and Kilmore, Brook, 608.

Knife of brownish black Flint, of oblong shape, ground along one side and one end, measuring $3\frac{3}{8}$ inches in length, $1\frac{3}{4}$ inches in breadth, and $\frac{7}{16}$ inch in greatest thickness, found at Clints, Berwickshire; thick leaf-shaped Arrow-head of grey Chert, measuring $\frac{1}{16}$ inch long and $\frac{1}{32}$ inch broad, and Slug-shaped Implement of red Flint, measuring $1\frac{7}{16}$ inch by $\frac{1}{2}$ inch by $\frac{9}{32}$ inch, found near the Ring of Brodgar, Stenness, Orkney; Blade of cream-coloured Flint, obliquely pointed at one end, battered on the angled part, measuring $1\frac{1}{16}$ inch by $\frac{5}{16}$ inch, from Quinni Moan, Stenness; finely made Burnisher of brown Quartzite, of rectangular section, contracting slightly towards the ends, which are rounded vertically, measuring $2\frac{3}{16}$ inches by $\frac{5}{8}$ inch by $\frac{9}{16}$ inch, from Cray, Glenshee, Perthshire; five Burnishers made from white and cream-coloured quartz pebbles, from Newstead Roman Fort, and one from Dryburgh Mains, Orchardfield, Berwickshire; butt half of a finely made stone Axe-

hammer, broken through the perforation, and eleven Discs of fine-grained grey Sandstone, measuring from $2\frac{1}{16}$ inches by $\frac{5}{16}$ inch to $\frac{13}{16}$ inch by $\frac{3}{16}$ inch, from Fairnington, Kelso, Roxburghshire; Intaglio from a finger-ring, showing a man standing facing a tree, two dogs in front of him, one jumping against the tree, while a bird flies into the branches, from Dryburgh Mains; fragments of six variegated Glass Armlets, all of D-shaped section, from Newstead Roman Fort; Button Mould of mica schist, measuring $4\frac{3}{8}$ inches by $\frac{9}{16}$ inch, with matrices for two domical-shaped buttons on one side, and part of another matrix on the opposite side, from Dryburgh Mains, Berwickshire.

Oblong Snuff-box of Horn, measuring $4\frac{7}{8}$ inches by $2\frac{3}{4}$ inches by $1\frac{1}{16}$ inch, with a strap round each end, and a horse standing on a pedestal with foliage on the lid, of silver; Snuff-spoon of bone, in form of a Highlander wearing a Glengarry bonnet.

Old Orkney Armchair with straw back and two drawers below the seat.

Armchair of Beech and Scots fir with the initials K.I. and date 1773, with a heart between, carved at the top of the back, from Birsay, Orkney.

Wooden Cog formed of staves and two iron hoops, with two vertical handles, which have a large perforation near the centre, and the top and bottom ending in a scroll. The cog measures $7\frac{1}{4}$ inches in height and $9\frac{3}{4}$ inches in diameter at the mouth, and came from one of the North Isles, Orkney.

The following Donations to the Library were intimated, and thanks voted to the Donors:—

(1) By HIS MAJESTY'S GOVERNMENT.

The Geology of the Orkneys. Edinburgh, 1935.

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Curia Regis Rolls of the Reigns of Richard I. and John. London, 1935.

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(2) By THE COUNCIL OF THE ROYAL SCOTTISH ACADEMY.

One Hundred and Seventh Annual Report. Edinburgh, 1934.

(3) By THOMAS MCGROUTHER, F.S.A.Scot., the Author.

The Meaning of the Inscription on the Window-sill of the Old Masonic Building in Silver Row, Falkirk. Reprint from *The Falkirk Herald*, 20th April 1935.

(4) By THE EAST ASIAN ARCHÆOLOGICAL SOCIETY.

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(5) By THE SOCIETY OF FRIENDS OF DUNBLANE CATHEDRAL.

Transactions, vol. i., parts 1-4, 1930, 1931, 1932, 1933; and vol. ii., part 1, 1934.

(6) By Sir GEORGE MACDONALD, K.C.B., President.

Awarische Gräberfunde von Margarethen am Moos (N.-Ö.). By L. Nischer. (Reprint from *Mitteilungen der Anthropologischen Gesellschaft in Wien*.) Vol. lxxv. Vienna, 1935.

Rome of The Renaissance and To-day. By Sir Rennell Rodd, G.C.B. London, 1932.

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Romans, Kelts and Saxons in Ancient Britain. By R. E. Zachrisson. Upsala and Leipzig, 1927.

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The Development of Sumerian Art. By C. Leonard Woolley. London, 1935.

Historic Monuments of Britain. I. The Roman City of Silchester. By F. Haverfield, M.A. (From *Pearson's Magazine*, vol. xviii., part 2.)

Tabula Imperii Romani: Map of The Roman Empire based on the Carte-Internationale du Monde au Millionième. London Congress, 1935: Sheets O-30; Edinburgh, N-30; Alexandria, H-35; Cairo, H-36; Aswan, G-36; Wadi Halfa, F-36. Southampton, 1935.

The Brus Inscription at Annan. By George Neilson, LL.D. n.p., n.d.

Opravingen te Vechten. By Dr A. E. Remouchamps. Utrecht, 1928.

The Hellespont in Retrospect. By George Neilson, LL.D. (From *The Proceedings of the Royal Philosophical Society of Glasgow*.) Glasgow, 1916.

Crosraguel Abbey. By J. O. Mitchell. (Reprinted from *The Glasgow Herald*, February 1890.)

Glasgow and Helensburgh: as recalled by Sir Joseph D. Hooker. By David Murray. (Reprinted from *The Helensburgh and Gareloch Times* of 21st and 28th September 1918.)

The Royal Scottish Academy: a Retrospect. By James Paterson, R.S.A. Edinburgh, 1911.

Some Historians of Scotland: a Public Inaugural Lecture delivered at University College, London, in the presence of Her Majesty the Queen, on 21st February 1924. By Walter Seton of Abercorn, M.A., D.Lit., F.S.A. Edinburgh, 1924.

Histoire Numismatique du Comté puis Duché de Luxembourg et de ses Fiefs. By l'Ecuyer Bernays and Jules Vannérus. Complément. Brussels, 1934.

Cantor Lectures on Ornament in Britain. By Charles Reed Peers, C.B.E., M.A., F.S.A. Hastings, 1926.

(7) By THE DIRECTOR, Royal Scottish Museum.

Report for the Year 1934. Edinburgh, 1935.

(8) By THE BOARD OF TRUSTEES.

Report for the Period from 1st April 1934 to 31st December 1934. Edinburgh, 1935.

(9) By THE TRUSTEES of the Metropolitan Museum of Art, New York.

Sixty-fifth Annual Report, 1934. New York, 1935.

(10) By T. SHEPPARD, M.Sc., F.S.A.Scot., Director.

Hull Museum Publications. Nos. 182-184. Hull, 1934-1935.

(11) By J. GRAHAM CALLANDER, LL.D., F.S.A.Scot., Director of the National Museum of Antiquities.

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Irish Gold Lunulae, with special reference to a pair from Midleton, Co. Cork. By L. S. Gogan. Reprint from the *Journal of the Cork Historical and Archaeological Society*, vol. xxxix., part 1.

National Museum of Ireland. Short General Guide to the National Collections. Dublin, n.d.

Excavation of Cairn in Townland of Curraghbinny, Co. Cork. By Seán P. O'Riórdáin, M.A., H.Dip. in Ed. (Reprint from the *Journal of the Cork Historical and Archaeological Society*, vol. xxxviii.)

The Quaternary Changes of Ocean Level: Cause and Consequences. By Cosmo Johns. (From the *Geological Magazine*, vol. lxxi. 1934.)

La Grotte de la Combette à Bonnieux. A. Moirenc et A. Vayson de Pradenne. Le Mans, 1934.

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The Proper Function and Scope of a National Art Gallery and Museum. Address of His Excellency, Lord Bledisloe, when laying the Foundation Stone of the National Art Gallery and Dominion Museum at Wellington. New Zealand, 14th April 1934.

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(12) By THE MANX MUSEUM AND ANCIENT MONUMENTS TRUSTEES.

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(13) By JOHN A. INGLIS, K.C., F.S.A.Scot., the Author.

Sir Adam Otterburn of Redhall, King's Advocate, 1524-1538. Glasgow, 1935.

(14) By Dr JOHN LINDSAY, M.A.

The Clan Lindsay Society. Report, 1933, with Bulletin.

(15) By W. DOUGLAS SIMPSON, M.A., D.Litt., F.S.A.Scot.

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(16) By THE BRITISH BROADCASTING CORPORATION.

B.B.C. Annual, 1935. London, 1935.

(17) By Miss V. C. C. COLLUM, F.R.A.I., F.S.A.Scot., the Author.

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(20) By Rev. A. R. HOWELL, M.A., F.S.A.Scot., the Author.

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(21) By W. PERCIVAL WESTELL, F.L.S., F.S.A.Scot., the Author.

A Mediæval Kiln Site at Chicksands, Shefford, Bedfordshire. (Reprint from *The East Herts Archaeological Transactions*. Vol. ix., part 1.)

Sandon Mount, Hertfordshire: its Site, Excavation and Problems. (Reprint from the St Albans and Hertfordshire Architectural and Archaeological Society's *Transactions*, 1934.)

Bronze Objects found in Hertfordshire. (Reprint from *The Antiquaries Journal*. Vol. xv. No. 3.)

(22) By THE MIDDLESEX STANDING JOINT COMMITTEE.

County of Middlesex. Calendar to the Sessions Records. New Series. Vol. i., 1612–1614. London, 1935.

(23) By THE DIRECTOR, National Museum of Wales.

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(24) By FRANK MILLER, F.S.A.Scot., the Author.

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(25) By THE CURATOR, Russell-Cotes Art Gallery and Museum, Bournemouth.

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(26) By Miss J. C. C. MACDONALD, F.S.A.Scot.

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(27) By CHARLES B. BOOG-WATSON, F.S.A.Scot.

Führungsblätter des Landesmuseums Trier—Das Amphitheater zu Trier, 1934.

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(28) By WILLIAM J. MCCALLIEN, D.Sc., F.R.S.E., the Author.

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(29) By J. A. SIDNEY STENDALL, Municipal Museum and Art Gallery, Stranmillis, Belfast.

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(30) By Professor Dr phil. HAAKON SHETELIG, Bergen, the Author.

Introduction to the Viking History of Western Europe. (Reprint from *Viking Antiquities of Great Britain and Ireland*. 1919.)

(31) By Sir JOHN STIRLING MAXWELL, Bt., K.T., LL.D., F.S.A.Scot.

An Account of the Seals of the Kings, Royal Boroughs, and Magnates of Scotland. London, 1792.

(32) By A. J. H. EDWARDS, F.S.A.Scot.

Excavations at Chelm's Combe, Cheddar. By H. E. Balch, F.S.A.

(33) By WALTER G. GRANT, F.S.A.Scot.

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(34) By Professor H. DRAGENDORFF, *H.F.S.A.Scot.*, the Author.
Arretina.

(35) By Commander G. E. P. HOW, *R.N., F.S.A.Scot.*, the
Compiler.

Catalogue of a Remarkable Collection of sixteenth- and seventeenth-century Provincial Silver Spoons, incorporating the entire collection left by the late H. D. Ellis, Esq., at his death. The property of Lieut.-Col. J. Benett-Stanford of Pythouse, Tisbury, Wiltshire. To be sold by auction by Messrs Sotheby & Co. on 13th and 14th November 1935. London, 1935.

(36) By RAIMONDO N. DE PINTO, *F.S.A.Scot.*

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(37) By LÉON COUTIL, *H.F.S.A.Scot.*, the Author.

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(38) By NIGEL G. TRANTER, *F.S.A.Scot.*

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(39) By GEORGE VEITCH, *F.S.A.Scot.*

The North British Distillery Co., Ltd., Wheatfield Road, Edinburgh. Established 1885. London and Edinburgh, 1935.

(40) By Mrs DOROTHEA CHAPLIN, *F.S.A.Scot.*, the Author.

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A Dictionary of the Older Scottish Tongue. By Sir WILLIAM A. CRAIGIE, LL.D., D.Litt. Part 5. Oxford, 1935.

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The following Communications were read:—

I.

ON TWO INSCRIBED STONES OF THE EARLY CHRISTIAN PERIOD FROM THE BORDER DISTRICT. BY SIR GEORGE MACDONALD, K.C.B., PRESIDENT.

The two inscribed stones of which I am about to speak both belong to a class that is common in the extreme south-west of our island—that is in Cornwall, Devon and Dorset, and in the Principality of Wales. Sixty years ago these districts furnished Hübner with about 160 of the examples which he published in his *Inscriptiones Britanniae Christianae*. The balance from Scotland was almost negligible, and all the known Scottish examples came, as might be expected, from the country south of the Forth and Clyde isthmus—that is, from Brythonic territory. In his introduction to *The Early Christian Monuments of Scotland* Dr Joseph Anderson mentioned one from Whithorn, three from Kirkmadrine, one from Kirkliston, and one from Whithope near Yarrow Kirk, as well as a fragment from Overkirkhope in Ettrick.¹ So far as I remember, the number has not been added to since. Some of these have inscriptions more elaborate than those now to be described, and are therefore presumably earlier. The closest analogy is that presented by the "Cat Stane," near Kirkliston. At the same time it is worth noting that the two newcomers were found in the same region as the two which close Dr Anderson's list.

1. THE LIDDESDALE STONE.

On an evening in August 1933 Mr Andrew W. Sommerville of Bishop's Stortford was walking with one of his sons along the bank of Liddel Water at Brox, a house which stands near the road, about a mile on the Hawick side of Newcastleton. The season had been exceptionally dry, and at a point a few yards below the junction of the river with the Ralton Burn the lad drew his father's attention to a stone with "printing on it," which was showing above the surface. Wading in to investigate, they verified the fact that it was an inscription. Mr Sommerville was much interested and, on his return home, wrote asking a friend to have the stone brought ashore in order that it might be properly examined. This was done, so that on his next visit to the neighbourhood he was able to take a photograph. Last summer he

¹ *Op. cit.*, pp. xiii ff.

was good enough to send me a print and a description, which between them left no doubt as to the significance of the discovery. Through the good offices of the present Duke of Buccleuch, then Lord Dalkeith, the stone was presented to the National Museum by the Buccleuch Estates Limited. For an explanation of how it got into the stream we may turn to information supplied by Mr Walter Thomson, owner of Brox. Some time ago a heavy flood washed away about 10 yards of soil, carrying with it a portion of a dry-stone wall, in the base of which the inscribed stone may have been lying. So far as Mr Thomson could learn, the "find-spot" was exactly underneath what had been the line of the wall.



Fig. 1. The Liddesdale Stone.

The block is of sandstone, and the illustration (fig. 1) renders a detailed description of its shape unnecessary. Its greatest length is 5 feet 8 inches and its greatest breadth 1 foot 9 inches, while it varies in thickness from 8 inches to 11 inches. The breadth of the lettered surface ranges from 15 inches to 17 inches. The inscription is in three lines. So far as can be determined, all the letters are or have been about 2 inches high, except at the very end, where the ligature has a height of $3\frac{1}{8}$ inches, and the letter which follows it one of $2\frac{5}{8}$ inches. The reading (fig. 2) is certain—*hic jacit Caranti fili Cupitiani*. Equally so is the sepulchral character of the monument—"Here lies Carantus, son of Cupitianus."

The form *jacit* appears also on the "Cat Stane," and in Wales and Cornwall it is far more frequent than *jacet*. On the other hand, the use of the genitival termination—*i*, where one might expect the nominative, is new to Scotland, although quite common in the south-west of the island. The affinity between the Liddesdale Stone and the south-

western group is further emphasised by the manner in which the first two letters of *fili* are ligatured; there are, for instance, exact parallels from Cardiganshire, Glamorganshire and Pembrokeshire. The proper names, too, are entirely in order. During the period of the Roman occupation a man called Carantus dedicated an altar to Minerva at Bremenium (High Rochester),¹ and Holder in his *Altceltischer Sprachschatz* cites examples from Metz, Brambach, the neighbourhood of Mainz and elsewhere. Cupitianus is similarly attested from an even wider area on the Continent, as well as from

Fig. 2. Inscription on the Liddesdale Stone.

Britain itself. Thus, a certain C. Julius Cupitianus, a centurion, is known to have rebuilt a temple to the Mothers at Cambeck in Cumberland,² while it seems highly probable that "Cupetian," whose name is said to have been copied on a long-lost *hic jacet* inscription from Merionethshire,³ was really Cupitianus.

It would be rash to attempt to date the monument with any approach to precision. The names are of no use for the purpose, nor is there anything very distinctive about the lettering, except that it is much debased. There remains the language. Had there been no verb, the use of the double genitive would have been perfectly defensible, it being easy to supply some Latin equivalent for "The grave (of)." That might, indeed, have been represented as a return to the practice of Republican Rome! It is one of the simplest forms of Latin epitaph, and it is not unnatural that it should have re-appeared in Britain after touch had been lost with the centre of the Empire. In point of fact, the double genitive by itself is found over and over again in the inscriptions of the south-west. Only when it is combined with an expression like *hic jacit* or *hic jacet* can we be sure that all sense of grammar has been lost. Bearing, as it does, this mark of degeneracy, the Liddesdale stone can hardly be assigned to a period earlier than the seventh century of our era.

2. THE MANOR WATER STONE.

For my knowledge of this stone I am indebted to one of our Fellows, Mr James Grieve, who most generously placed at my disposal all the

¹ CIL. vii. 1033. For an example from Wales (Tomen-y-Mur, near Ffestiniog) see Westwood's *Lapidarium Walliae*, Pl. 78, No. 4.

² CIL. vii. 887.

³ *Arch. Camb.*, N.S., i. (1850), p. 204.

information he possessed regarding it, as well as more than one admirable photograph. It seems to have been first noticed about 1890 by Robert Welsh Anderson, son of the shepherd on Kirkhope Sheep Farm, then a lad but now retired and resident in Peebles. It was originally associated with a cairn of stones, but on the instructions of his master, Mr Simon Linton of Glenrath, Anderson brought it 300 yards down the hill and placed it within a railed enclosure, where it remained until quite recently, when, at the instance of Mr Grieve, it was transferred to



Fig. 3. The Manor Water Stone.

the shelter of the Peebles Museum. In the interval the cairn had been removed and the stones utilised to build a dyke. Mr Grieve dug into the site, but found no trace of any interment.

Even after it had been placed within the enclosure, the monument failed to attract the attention it deserved, until it was re-discovered by Mr Grieve a year or two ago. In 1910 the late Dr Clement Gunn mentions it, along with an ancient font, a piscina and a modern memorial cross, as marking an old ecclesiastical site "on the left side of Newholm Burn, near the head of Manor valley."¹ But he speaks of it merely as "an inscribed fragment," and gives no details. It is a block of hard whinstone, 3 feet long and having a maximum breadth of $9\frac{1}{2}$ inches on the inscribed face (fig. 3). On this face two vertical lines have been cut

¹ *The Ministry of Peebles*, vol. iv. p. 108.

at a distance of 1 foot $3\frac{3}{4}$ inches from one another, and in the intervening space are two horizontal lines of lettering, the average height of which is $1\frac{3}{4}$ inch. The individual characters are firmly incised and stand out more clearly than those on the Liddesdale stone, the close-grained surface having offered a stouter resistance to the weather. Unfortunately, however, the task of interpretation, difficult enough in any case, has been rendered still more difficult by a breakage. Part of the second line is wanting, nor is it possible to say with certainty how many letters are missing.

Celtic philology is a region that is full of perils for the amateur, and to venture into it without expert guidance would have been rash indeed. I found, however, that distinguished Celtic scholars were more than willing



Fig. 4. Inscription on the Manor Water Stone.

to help me. Mr Nash Williams, Keeper of the National Museum of Wales, furnished me with some useful references. But my chief debt is to Professor Watson of Edinburgh and Professor Ifor Williams of Bangor, both of whom sent me full and considered opinions regarding the obscure linguistic affinities of the two words that are visible on the stone. Neither felt able to reach a perfectly clear-cut decision on the complex philological questions that arose, and I am sure that they would wish any indication of their views to be looked on as provisional. Subject to that reservation, I will try to summarise the definite suggestions that emerged from the wealth of analogies and quotations which they cited.

Before doing so, however, I ought to explain that they had before them, not only the photograph, but also a sketch of the inscription, made by Mr C. S. T. Calder (fig. 4). Excellent as the former is, there are one or two points which the camera has left just a little doubtful. In order to settle these, Professor Bryce, Mr Calder and myself paid a visit to the Peebles Museum and made a careful examination of the original. So long as we had only the photograph to go upon, there was some difference of opinion between us, but in presence of the stone itself a unanimous agreement was arrived at. It seems worth while

mentioning this, in case there may be readers to whom fig. 4 does not appear entirely convincing.

The Manor Water stone, like that from Liddesdale, is sepulchral. In this case the warrant is supplied by the cross at the beginning of the first line. The numerous parallels from elsewhere make that sign just as significant as the words *hic jacet* would have been. The cross here is a pronounced "cross pattée," a feature which it was at one time hoped might prove a serviceable clue for dating. Comparisons, however, led into a blind-alley. Immediately after the cross we should expect to find the name of the person commemorated, and *Coninie*, which can be plainly read, must be a proper name. What does it represent? After weighing various alternatives—some Welsh and others Irish—the two authorities I consulted reached an identical conclusion. They think that in all likelihood it is for *Coniniæ*, the genitive of *Coninia*, the Latinised form of an Irish feminine, corresponding to the masculine *Conin*. Professor Watson reminds me that there was a Conin among the twelve monks who accompanied Columba to Iona. On this interpretation the stone must mark the grave of an Irishwoman.

Six letters of the second line are legible, and they are, without any doubt, *rtirie*. Along the edge of the fracture one can see traces of a seventh letter, very possibly an *e*, and, to judge by the space available, at least one other has been lost. However the word may have begun, it certainly terminated in the same way as the one above it. Presumably, therefore, it was also a genitive singular feminine. We have thus to choose between a second proper name and an adjunct of the first. If we prefer a proper name, there is a fairly promising one ready to hand, but not from Ireland. In the earliest Welsh MS., *The Black Book of Carmarthen*, a certain Erthir is mentioned as one of "the three best warriors in their land," and philologically *Ertirie* would be an exact feminine parallel to *Erthir*. But, if *Ertiri(a)e* be read, then (as Professor Williams points out) there must have been a second cross in front of it—partly because something more than "E" is needed to fill the space, and partly because the new name could hardly be left hanging in mid-air without any introduction.¹ The second cross would imply that there were two women buried at the foot of the stone—one Irish and the other Welsh.

However satisfactory such an equal division of the philological spoils may be, there are obvious historical difficulties which made it desirable to examine the alternative hypothesis of an adjunct. And here

¹ For a stone with crosses denoting more than one interment, see Hübner, *op cit.*, No. 61 (p. 23). There are others.

Professor Williams threw out a suggestion which Professor Watson describes as "probable and happy." If one could read [MA]RTIRIE, one might take this as a Latinised form of the Irish *martir* or even of *martre* (= *martyrium*). The trouble is that such indications as survive point to the second letter having been E rather than A. Even so, there may be a way out. The E may betoken Welsh influence, and one is then free to compare *Merthyr-Tudvil*, so called from a Welsh princess who was martyred there. After all, there is nothing intrinsically unreasonable in the idea of an Irishwoman being martyred in Brythonic territory and having this tribute erected to her memory by her Brythonic friends. As I have already indicated, the explanation is meanwhile to be regarded as tentative and provisional only. It may by and by be superseded by something better. If not, the Manor Water stone will have a peculiar interest for all lovers of Southern Scotland. It will mark what would be by far the oldest of "the graves of the martyrs" yet noted on "the hills of home."

As to its exact age nothing very definite can be said. When Mr Nash Williams first saw it, he was so much impressed by the comparatively good quality of the lettering that he was disposed to fix upon A.D. 550 as the very latest possible date for the inscription. Against that may perhaps be set the letter R with its almost horizontal tail. Professor Watson drew my attention to the fact that the form bears a close resemblance to that employed in the *Book of St Chad*, which may be as late as *circa* 700.¹ I may add that it also occurs on the stone from Yarrow Kirk, now in our Museum, and that there it has for company the square C, which appears on the monumental inscriptions of Gaul in the beginning of the sixth century, but does not disappear until after the close of the seventh.²

In conclusion I desire to thank Mr Somerville and Mr Grieve for bringing these stones to my notice, as well as the scholars I have named for help without which the last part of this paper could not have been written.

¹ See the extracts reproduced in facsimile in Evans's edition of the *Book of Llan Dâw* (1893), facing p. xlviii.

² *Early Christian Monuments of Scotland*, p. xviii.

II.

POST-REFORMATION TOMBSTONES IN THE CATHEDRAL
CHURCHYARD, ST ANDREWS. BY SIR GEORGE
MACDONALD, K.C.B., PRESIDENT.

Owing to a misunderstanding the fine collection of seventeenth-century memorials from St Andrews Cathedral Churchyard—quite the finest in the country¹—received very inadequate notice in the *Inventory of Ancient and Historical Monuments in Fife*, published by the Royal Commission. Out of a total of more than 80, only 3 are mentioned in that volume. As soon as the attention of the Commissioners was drawn to the oversight, they authorised me to prepare a list and, if possible, to arrange for its being printed in the *Proceedings*, where it would be readily accessible. In carrying out their instructions I have had the assistance of two members of their staff—Mr C. S. T. Calder, whose co-operation in the necessary survey was invaluable, and Mr G. P. H. Watson, to whose advice the architectural descriptions owe not a little of such accuracy as they may be found to possess. It is hardly necessary to say that H.M. Office of Works gave me every facility for examining the stones. References in the text and in the footnotes will show that there are other obligations to acknowledge. But a list of the names actually mentioned would not be by any means exhaustive. The number of friends whom I have troubled with enquiries, sometimes of a seemingly trivial character, is so large that I must content myself with a general expression of indebtedness. Fig. 3 is from a block kindly lent by Mr J. J. Bonar, Lasswade. Figs. 4, 10 and 13 are from blocks already in the possession of the Society. The photographs for the others were taken for me by my son.

Introductory.—In 1704 Robert Monteith published a little book, entitled *An Theater of Mortality*, in which he brought together a set of epitaphs which he had copied in various churches and churchyards in Edinburgh, notably Greyfriars. The venture must have been successful, for nine years later it was followed by a second part, which had for its sub-title *A Further Collection of Funeral Inscriptions over Scotland*. Besides additional material from Edinburgh, this contained extensive series from other towns and cities, including St Andrews. Of the 41 inscriptions quoted from “the Common Burial-place” there,

¹ I refer to the tombstones proper. The few surviving mural monuments cannot compare with the series in Old Greyfriars, Edinburgh, or even with that at Crail.

27 can be associated with monuments that are catalogued below. The remaining 14 have disappeared. In some cases Monteith's version does not quite correspond to what is to be seen upon the stone to-day. This is partly because he did not hesitate to correct what he believed to be mistakes, partly because, in Dr Hay Fleming's words, "he was not always so careful as he should have been, and his readings are not always immaculate."¹ Nevertheless, his record is often of real value as an aid to the decipherment of words and letters that have suffered from exposure to the weather since he saw them two centuries ago.

In 1886 and 1887 Sir Lambert Playfair spent a good deal of time studying the stones and had numerous photographs taken. If he ever contemplated publication, he abandoned the idea and handed his notes over to Dr Hay Fleming, who in turn put them at the disposal of the late Mr Alan Reid, when he was preparing his "Churchyard Memorials of St Andrews" for the *Proceedings*.² Mr Reid's paper does not claim to be exhaustive. Thus, while he begins before the Reformation and comes down beyond 1707, the date fixed by the Royal Warrant appointing the Commission, he says nothing at all about a good many of the monuments with which I shall have to deal. He makes one or two excellent points, and his infectious enthusiasm is irresistible. But he does not attempt to grapple with the more difficult inscriptions, and he was severely handicapped by having had no opportunity of acquainting himself with local history, a weakness that occasionally leads him into erroneous identifications. So far as the stones now in the Cathedral Museum are concerned, and they form more than three-quarters of the whole, Dr Hay Fleming's *Catalogue*, which appeared in 1931, rediscovers the past about as effectually as it would be possible for anyone to do. His knowledge of seventeenth-century St Andrews was unrivalled, and he throws a flood of light on the "little lives" of many of the individuals commemorated. Much of my information is drawn from his pages.

Had he been as competent to deal with lapidary inscriptions as with local records, the Royal Commission might safely have adopted his account of the stones which he describes. But he was almost innocent of Latin, the language used in many of the epitaphs. Nor was he altogether happy in his choice of a collaborator to remedy the defect, for not merely are the renderings inelegant but every now and again they are disfigured by serious blunders.³ These being the omens, it is hardly

¹ *Catalogue of the St Andrews Cathedral Museum*, p. 63.

² Vol. xlv. (1910-11), pp. 488-550.

³ Compare, for example, the translation of No. 31, which appears in the *Catalogue*, with that which is given below.

surprising to find that the originals have sometimes been wrongly copied, and that *lacunæ* are a good deal more frequent than there was any need for them to be. That even the English epitaphs should have suffered in similar fashion is doubtless due in great measure to the fact that, when the book was passing through the press, the author was already gravely ill and quite unable to undertake the indispensable task of verification. Except in one or two particular instances, it has not seemed necessary to call attention to the numerous points of difference between us. The curious can readily discover these for themselves. Here it will be enough to say that, wherever I have come upon an error or an omission, I have done my best to remedy the defect. That, I am sure, is what Dr Hay Fleming himself would have wished. He was a man of strong character, and a relentless insistence upon meticulous accuracy in others was more characteristic of him than anything else, unless indeed it were his deep and abiding love of St Andrews.

Classification.—While adhering to 1707 as the limiting date, I have been able to compile a list of 82 items belonging to the post-Reformation period, 66 of them being in the Museum and 16 elsewhere within the Churchyard. A very few fragments built into the inner face of the Abbey Wall on the north side have been left unnoticed, as their remains were too meagre to admit of intelligible description. The "head-stone," which became so popular in the eighteenth century, was previously almost unknown,¹ and the 82 accordingly fall into two main groups—those that were laid flat and those that were affixed to a wall. In the former group there is only one (No. 30) which can be certainly identified as having been a "table-stone," supported by legs. The others have rested directly upon the ground. The majority of these, or 38 in all, have their surface on one plane, being what are conveniently known as "recumbent slabs," such as occur all over the country. But as many as 18 are "coped stones" (Fig. 6), a type which in Scotland is rare outside of East Fife and which is believed to have been introduced from the Low Countries.

Coped Stones.—These lent themselves readily to decorative purposes. The sloping sides and ends presented the mason with four different surfaces on which to exercise his skill, while the ridge in the centre was frequently broad enough to offer him a fifth. The ends were usually reserved for coats-of-arms, initials, cherubs, the conventional symbols of mortality, and the like. The main feature of each of the sides was a long narrow panel, displayed on a scrolled cartouche and generally

¹ Slezer's engraving of 1693, referred to below (p. 45), shows a single example, and I have a note of one, from another locality, bearing the date 1685.

inscribed. According to the space available, the centre might be inscribed, or might bear symbols of mortality, or might be left blank. On **Nos. 7, 20, and 24**, the last two obviously designed by the same hand, the lettering is in relief. On the other coped stones it is invariably incised, except in the case of isolated initials. As a rule, but not always, these latter are in relief. Occasionally, as on **Nos. 4, 10, and 12**, a wife's initials are incised, while her husband's are in relief, a convention which may have some significance, although I have failed to discover what it is. It will be evident that, in the nature of things, there was no one point from which the devices and inscriptions on all four (or five) surfaces would be conveniently visible. To "read" a coped stone it was therefore necessary to walk round it, and a study of the series suggests—see, for instance, **Nos. 7 and 9**—that one was expected to begin at the top of the dexter side or, in other words, at the deceased's right shoulder and proceed downwards or "widdershins." If this is so, some of the stones in the Museum are at present (1935) inverted. In the list these are indicated by an asterisk, and in describing them the words "dexter" and "sinister," as well as "top" and "bottom," are used as if all alike were correctly placed.

Recumbent Slabs.—The fact that there is but a single surface to be dealt with allows of much more variation in the treatment of the recumbent slabs. **No. 52**, for example, has the stark simplicity of the plainest of modern headstones, lacking as it does the almost ubiquitous adjunct of a heraldic achievement, so characteristic of an age when the burgess was as proud of his coat-of-arms as was the country gentleman. At the opposite extreme of elaboration is **No. 19** (Fig. 4), and between these two there are many gradations. Among decorative devices the inscribed panel, displayed on a scrolled cartouche, is frequently employed, just as it is on the coped stones. **No. 12** (Fig. 3) will serve as an illustration. In this instance, and in some others, everything would be visible to one standing at the foot of the grave. But now and then the influence of the coped stones betrays itself, as on **No. 1** and again on **No. 5**, on the latter of which the epitaph proper occupies a relatively small space at the top and is illegible unless looked at from that end, the letters being inverted. Finally, in 21 out of the 38 cases the epitaph proper begins at the top dexter corner and runs clockwise round the margin of the stone, forming a border within which it is, if necessary, continued in horizontal lines. So much of the enclosed space as is not required for its completion may be employed for other lettering, for coats-of-arms, or for various devices. The marginal inscriptions are usually introduced by a hand, with the index finger extended. They are almost

invariably in relief and the letters large enough to produce a decorative effect. Reference to Figs. 2 and 7 will show how successful the result frequently was.

Mural Monuments.—It would be idle to attempt any stylistic analysis of the mural monuments. But they raise an interesting question of quite a different kind. Of those which I shall have to describe, 8 are still in their original positions on the Abbey Wall, while 2 (Nos. 69 and 70) have been pieced together, after being broken, and have then been inserted into the inside face of the north wall of St Rule's Church, a portion of No. 70 being restored in a differently coloured stone. The rest, of which there are at least 8, are represented by more or less considerable fragments, now in the Cathedral Museum. It is natural to suppose that the wall to which the two no longer *in situ* were at first attached was identical with the wall whose former existence is attested by the fragments. Where was this wall, and how and when did it disappear? That it belonged to the Cathedral Churchyard and that it was still intact in 1713 may be inferred from the fact that, not only the inscriptions on Nos. 69 and 70, but also those on two of the fragments with which inscriptions can be associated, were all copied by Monteith from monuments in the "Common Burial-place." But I think we can get a good deal nearer to it than that.

Those who are familiar with the locality will remember that the Abbey precinct was originally somewhat larger than it now appears to be. The reduction in size was effected by carrying a wall, which contains a gateway, across the space of 11 yards which separated the north-eastern buttress of the Cathedral from the most westerly of the surviving towers on the northern stretch of the Abbey Wall, that commonly known as the Turret Light, thus incorporating the Cathedral itself in the boundary of the precinct. With this, however, we are not concerned. The important point to note is that from the Turret Light onwards the Abbey Wall, in the words of the Royal Commission's *Inventory*, "originally trended towards the north-west to enclose what is now part of the churchyard."¹ To-day only the first 9 yards of the north-westerly stretch are left, the place of the rest being occupied by a comparatively modern substitute. In the circumstances it will be well to see what help we can get from the earlier "sources."

The oldest relevant sketch of the ruins which I have been able to find is that executed in 1642 by Gordon of Rothiemay.² There the Abbey Wall proper, pierced only by the "Shore Port," is carried across

¹ See, however, what is said below as to the sketch by Gordon of Rothiemay.

² *Bannatyne Miscellany*, vol. iii., facing p. 324.

the head of the "Swallow Gate" to the sea, while a branch, in which there are no towers, follows the line of the modern wall, from the Turret Light to the Pends and beyond. An importance of a different kind attaches to the view published in 1693 in Slezer's *Theatrum Scotiae*. It is taken from the north, and shows the buildings very much as they are to-day. Although there is no sign of any wall, there must have been one immediately behind the artist, for the idea of an unenclosed churchyard is unthinkable, and between the spectator and the Cathedral are many tombstones, all laid flat except for one "head-stone" and one "table-stone." Not merely, therefore, is this "now part of the churchyard." It must have been part of the "Common Burial-place" of which Monteith speaks. But very few of the numerous graves which it contains are, I think, of earlier date than some time after 1800.¹ Without a single exception the seventeenth-century stones have been removed. It is safe to assume that some at least of the recumbent slabs and coped stones in the Museum have come from here. From here, too, I believe, came the fragmentary mural monuments which lie beside them, as well as the two, fractured but complete, now inside the Church of Saint Rule; when Monteith saw them, they were built into the missing wall. I would venture to go further.

At the time of Monteith's visit the "Common Burial-place" included the area east of the Cathedral, just as it does at present. That is proved by the position of **Nos. 71-73**, which still lie there and which range in date from 1633 to 1668, and also by **No. 19**, which belongs to the same period and which was brought into the Museum in 1909 from near the "Divinity Corner." Moreover, six of the inscriptions transcribed in the *Theater of Mortality* can be identified with monuments still to be seen built into that portion of the Abbey Wall, which here forms the boundary on the north (**Nos. 76-80 and 82**). It is impossible to resist the conclusion that the missing wall was the north-westerly branch of this, depicted by Gordon in 1642, and that it had been utilised for mural monuments in precisely the same way as the rest. A sketch by J. Oliphant, which is reproduced in the *Catalogue*,² suggests that it stood to a considerable height until at least 1775, for it seems to be visible in the distance through the archway, though evidently in bad repair. Mr G. H. Bushnell, Librarian of the University, writes to me, however, that this is misleading, and that another view by Oliphant, also of 1775, now in the Hay Fleming Library, shows that

¹ Three or four small head-stones seem to belong to the latter half of the eighteenth century, but they are for the most part indecipherable.

² To face p. 178.

at that date it had been reduced to about 15 inches. Such a condition of things indicates that it came to a violent end. That would account for the condition of the monuments, which would be smashed to pieces if it were levelled by a northerly gale.

By the end of the eighteenth century it would seem to have disappeared entirely. George Martine's *Reliquiae Divi Andreae*, which had existed in manuscript since 1683, was first printed in 1797. To add to its interest, the editor had it embellished with two illustrations. The frontispiece, entitled "Cathedral of St Andrews with the Chapel of St Rule from the West," is a view taken from a spot which must be just within the modern entrance to the Churchyard. On the north or left-hand side the foreground is open almost up to the archway that leads into the precinct. There the 9 yards of the old wall, which still remain, project westwards from the tower, but of the new wall there is not the slightest sign. It had not yet been erected. Furthermore, there is nothing whatever to be seen of the tombstones which Slezer had depicted in 1693. It looks as if one result of the catastrophe to the wall had been a decision to clear this part of the graveyard, with the intention of allowing it to be re-used after it had lain fallow for a while.¹ Such an easy method of securing fresh space is not unknown elsewhere, and the area did in fact begin to be re-used in the early part of the nineteenth century. With this clearance we ought, I think, to connect the mass of human bones found in the lower storey of the "Haunted Tower," and the piles of coffins with their contents which were discovered in the upper storey, when a blocked-up door was temporarily opened in 1868.² It is significant that from the blocking masonry there was rescued a fragment of one of the broken monuments (No. 60).

Designs.—As already mentioned, heraldic devices are a prominent feature everywhere. The conventional symbols of mortality, too, occur over and over again—the skull and cross-bones, the hour-glass, the gravedigger's tools, the skeleton-figure of death with his "sting," and the like. By way of relief there are cherubs. Other designs are more elaborate and more interesting, such as those on Nos. 4, 19, 35, 39, 62, and 75. It is not, however, the subject-matter, but the manner in which it is treated, that lends distinction to the collection. The

¹ I had hoped to find some evidence as to this in local records. But neither the Town Clerk nor the late Clerk to the Heritors are aware of any documents that would be helpful. The former consulted Mr Bushnell, who is inclined to think, on such evidence as is available, that the new wall was built in 1826. The epitaphs, however, show that interments had begun to be made in the first decade of the century.

² Hay Fleming, *Handbook to St Andrews* (1910), p. 94.

men who carved these stones were not ordinary masons. They were craftsmen who aimed consciously at an artistic effect and were not seldom successful in achieving it. It would hardly be going too far to speak of them as a "school." The existence of such a school implies a demand, and the extent of the demand may be measured by the fact that the great majority of the monuments bear only a single name. Family tombs, such as **Nos. 12 and 15**, are the exception. Even husband and wife rarely rest under the same stone.¹ It is evident that these old-time St Andrews folk were not exempt from what is a common weakness of humanity, and that, when a death took place, the surviving relatives found comfort in reflecting that

"when they buried him, the little port
Had seldom seen a costlier funeral."

The wealth of its seventeenth-century churchyard memorials thus bears direct testimony to the prosperity of the town in the days when Fife was still "a beggar's mantle with a fringe of gold."

Inscriptions.—Apart from the differences in name and avocation, and in the quaint snatches of doggerel that are sometimes appended, the English inscriptions display little variation. Were any considerable collection from elsewhere available for comparison, local peculiarities would probably reveal themselves. As it is, the most obvious characteristic is a certain uniformity of phraseology. Once only is a notable breach made in the ordinary convention. This is on **No. 45**, one of the plainest stones of all and no better than a fragment at that. By the irony of Fate the name, the age, and the date of death of the "godly, honest man" whom it had been hoped to immortalise have disappeared. But the words that followed them are still there, and they strike a poignant note that has not altogether ceased to vibrate, even after two and a half centuries have elapsed—

PWT . ON . BE . [M]ARGARET . BALFO[VR .] HIS . LOVEING .
[SP]JOWS . LAMENTI[N]G . PITIFV[LLY].

Incidentally, it is not without interest to observe that long after 1611 the Bible is once or twice quoted in the Geneva Version, which it took some time to displace from popular favour.

Considerably more than half of the inscriptions are in Latin. That the proportion should be so high is quite in accord with the fashion of the time. So, too, is the frequent occurrence of metrical epitaphs

¹ See, however, **Nos. 7 and 33**. On **No. 34**, the epitaph gives a special reason for departing from the rule. So, too, with father and daughter on **No. 76**. Even in the case of **No. 33**, the wife seems to have died before there had been time to carve a stone for her husband.

or, where the epitaph proper is in prose, of metrical additions. As to the Latinity, despite the presence of the University it can hardly be said that the general standard is appreciably higher than the average elsewhere, if we may judge by the specimens which Monteith has collected from other places. But neither is it appreciably lower. It is true that it would not always have satisfied George Buchanan. False quantities are not unknown in the elegiacs; individual words and phrases are now and again used in senses that would have seemed strange to Cicero; and in one of the more ambitious efforts (No. 34), as well as in a humbler one (No. 52), *postquam* is followed by the pluperfect subjunctive, as if it had been *quum*. Still, taking everything together, only the captious would be disposed to cavil very seriously. Nor is the influence of trained scholarship altogether absent. It manifests itself in the quotations from classical authors, as well as in occasional epitaphs like those on Nos. 20, 24 and 64, all probably from the hand of James Wood, at one time Principal of Saint Salvator's. Naturally one is not seldom reminded of Dr Johnson's dictum that no man is upon his oath when he is composing a lapidary inscription.

In the detailed descriptions an effort has been made to avoid repetition by observing the following rules:—

1. The abbreviations "C.S." and "R.S." denote respectively a coped stone and a recumbent slab.
2. Inscriptions which are in cursive characters are printed in italics, while for those which are in uncials heavy black (Clarendon) capitals are used.
3. Letters that have been supplied are enclosed within brackets, round brackets indicating accidental omissions, and square brackets signifying gaps that are the result of wear or of breakage. If any of the letters within square brackets are in ordinary type, it means that the restoration is not quite certain.
4. Unless letters are explicitly said to be "in relief" (or "raised"), it is to be understood that they are incised, except where an inscription is spoken of as "marginal" (or "running round the margin"). If the contrary is not stated, "marginal" inscriptions are in relief and begin at the top dexter corner of the stone.
5. When letters or devices are so carved that they cannot be "read" from the foot of the grave, arrows are inserted to show whether they should be looked at from the head (↓) or from one of

the sides (→ or ←), but in the case of marginal inscriptions these directions are dispensed with as superfluous.¹

6. An asterisk attached to the number of a coped stone indicates that in its present position (1935) the stone is inverted, and that the terms "dexter" and "sinister," as well as "top" and "bottom," in the description are to be interpreted as if it were in its proper position.²

A. IN THE CATHEDRAL MUSEUM.

No. 1.—Agnes Downie and Jean Miniman. R.S. 6 feet 3½ inches by 2 feet 10 inches.

Most of the face is occupied by a scrolled cartouche, unusually plain, on the upper part of which is the original inscription:

*Hier lyis the bodie of/ Agnes dounie spouse to johne/ Minniman
meal-maker in St andreus/ Who depairted Agust 17 : 1672/ Being
of age 76 yeirs.*

The lower part has originally been left blank, not, however, for the husband's name, as it will be seen from **No. 8** that he had been dead for fifteen years and had been buried in a separate grave. In the space at the bottom, flanking a skull and cross-bones, are the initials **IM** and **AD**, the former being uppermost. The same letters, in the same relative position but ↓, are repeated in the space at the top, where they flank a small shield (↓), bearing a now effaced device and separated from **A** by a turving-iron (↓) and from **D** by a spade (↓). Beneath the shield is an hour-glass. The initials are all in relief.

Sixty years later the blank left on the lower part of the scrolled cartouche was filled, being utilised for the epitaph of Jean Miniman, who, if she was a direct descendant (which is doubtful), can only have been a great-granddaughter:

**HERE LYES THE CORPS OF JENE/ MINIMAN DOUGHTER TO
ALEXANDER/ MINIMAN FLESHER IN ST ANDREUS WHO/
DEPARTED THIS LIFFE IN THE YIER OF/ GOD 1732 & OF
HIR AGE 15.**

Beneath, side by side, are **AM** and **KS**, doubtless the initials of her parents; and beneath these again is *Memento Mori*.

¹ On the other hand, in a very few cases, in which there was a risk of ambiguity, (†) has been inserted after letters or devices in the upper or lower compartment of coped stones.

² See *supra*, p. 43.


No. 2.—I R. R.S. 6 feet 7 inches by 3 feet 4½ inches.

This handsome stone is well set off by a broad and deeply scalloped border. An upper and a lower cartouche, both elaborately fringed with strap-work, have between them a shield, which is flanked by the raised capitals **I R** and charged: On a fess enhanced, a crescent between two mullets; in base, a dexter glove dorsed. On neither cartouche is any trace of lettering now visible. The initials, however, lend strong support to Dr Hay Fleming's suggestion that the stone is identical with one recorded by Monteith¹ as having a Latin inscription which commemorated James Robertson, a bailie of St Andrews, who died in 1638. That inscription would be in the upper cartouche, while a quotation from Cicero, which Monteith also reproduces, would be in the lower one. Beneath the latter the raised initials occur again, **I** above a turfing-iron and a spade in saltire, and **R** above cross-bones, these two groups being divided from one another by a skull, over which is an hour-glass laid transversely.

The firm texture of the surface makes it unlikely that the inscriptions have perished through weathering. Rather, they seem to have been deliberately chiselled away, preparatory to the stone being appropriated as a memorial for someone else, as has happened in the case of **No. 37**. Here, however, the scheme of appropriation has been interrupted.

No. 3.—Martin Beveridge, Master of Arts.² R.S. 5 feet 11¼ inches by 3 feet 2 inches.

The soft surface has suffered badly from exposure, particularly on the sinister side. The inscription is marginal, the two lower corners being bevelled:

 HIR · LYETH · AVE · HO/NEST · M[AN · MASTER · MART]IÆ ·
B/EAV/EARAG · DE/CES/SED · IN · THE · ZEIR · OF · GOD ·
1637.

In the upper part of the space thus enclosed is a scrolled cartouche, bearing a panel on which are the words—**DEKIN · VAR/WOR : IN : SAW/TAANDRVs**, indicating that Beveridge had been "deacon-warner" or deacon-convener of the seven incorporated trades. Below is a shield charged: In chief a baker's peel; in base dexter a leather-cutter and

¹ *Theater* (1713), p. 112.

² In the seventeenth century the title "Magister" or "Master" seems to have been reserved for graduate ministers and lawyers. It is therefore surprising to find it applied to a deacon-convener of the trades, but, in view of what Professor Hannay tells me as to the general practice, I have not felt justified in departing from the ordinary interpretation.

sinister a knife. The shield has been flanked by the raised initials **M [B]**, beneath which there have been symbols. Of the latter nothing remains visible except what may have been an open book¹ and an hour-glass, one above another on the dexter side. Prominent in the lower part of the enclosed space is an unusually bold representation of a skull and cross-bones, with the legend **MEMENTO [MORI]** above it on a scroll, the long loose ends of which, flanked by the initials **M L**, stretch down on the dexter side to a spade, a turfing-iron and a mattock, arranged crosswise, and on the sinister side to two coffins in saltire, while in the centre is a heart pierced by three darts. The incised initials must be those of Beveridge's wife.

No. 4.—John Vennison. R.S. 6 feet 3¼ inches by 3 feet 5½ inches.

A portion of the surface has scaled off, but with Monteith's help² the whole inscription can be restored except the day of the month. A scalloped border has within it a border of volutes with crescentic terminals placed end to end. At the top of the enclosed space are two cherubs, side by side, looking to the front. Beneath these is a shield, flanked by two square panels and charged: A St George's cross surmounted of a heart in fess. On the dexter panel, one above another, are the letters **I** in relief and **C**, and on the sinister panel, similarly arranged, **W** in relief and **L**, the initials in relief being those of Vennison himself and the others those of his wife, Christian Lessels. On an oblong panel in the centre of the stone is the epitaph:

[H]C . IACET [PIVS . ET]/ INDVSTRIVS . ADOL[ESCENS]/
IOANNES . VEN[NISONVS .]/ FAMA . ET . INTE[GRITATE .]/
VITÆ . PRÆCLA R[VS . CIVIS .]/ HVIVS . CIVITATIS . ET
Q[VONDAM .]/ DIACONVS . ARTIS . / LANIATORIÆ . QVI .
OBIIT . / [?] DIE . MENSIS . AVGVSTI . / ANNO . DOMINI .
1654 . / ÆTATIS . SVÆ . XXXII

= "Here lies a godly and industrious young man, John Vennison, noted for his high reputation and his uprightness, a citizen of this city and once Deacon of the Fleshers' Incorporation, who died on the ? of August, A.D. 1654, the thirty-second of his age." After a short blank there follows the motto **VIVE MEMOR LETHI** = "In life remember death."

On the dexter side of the space below the panel containing the epitaph is (Fig. 1) a heart-shaped shield, charged: Two hands saltire-wise

¹ In the *Catalogue* this seems to be taken as the letter **M**, an interpretation with which I cannot agree.

² *Theater* (1713), p. 123.

appaumées coupé, and beneath the shield is an hour-glass. Balancing these on the sinister side are a shield displaying the various implements of the fletcher's craft, and an oblong panel within which is a double yoke for oxen, the latter a reminder that Vennison was a farmer as well as a fletcher. In the centre is a remarkable group. At the first glance the principal figure seems to be sheltering himself behind an oblong shield.¹ Closer examination shows that what we have is a death-bed



Fig. 1. Lower Part of No. 4.

scene, delineated without perspective. The dying man is on his right side, his night-capped head resting on a pillow, his features peaked and drawn, and his body covered by a quilted² and embroidered counterpane, outside of which lie his left hand and arm, while his raised right hand holds one side of an open book, in which he is presumably being shown his death-warrant. Behind him, attached to the back of the bedstead, which is just visible, is a pole to support a canopy. In front of him Death, in the guise of a skeleton, straddles an hour-glass, and grasps the other side of the open book with his left hand, while with his right he thrusts his "sting" forward towards his victim. An intimate touch is supplied by the faithful dog, which has sprung up from its master's feet and is barking furiously in a vain attempt to drive away the intruder.

¹ He is so described in the *Catalogue*.

² It is interesting to find quilting in use at this early date.

No. 5.—Janet Robertson. R.S. 6 feet $6\frac{1}{2}$ inches by 2 feet $10\frac{3}{4}$ inches.

In general design **No. 5** resembles **No. 2** very closely, the resemblance being all the more striking because of the identity of the initials. Inscriptions apart, the main differences are that the stone is narrower, that the lower of the two cartouches is less ornate, the panel stretching right across the face of the stone until its ends merge in the scalloped border, and lastly that the charge on the shield is a chevron between three wolves' heads erased. The lettering is much weathered and was evidently indistinct by 1713, since Monteith has several erroneous readings,¹ all of which save one are perpetuated in the *Catalogue*. The main inscription (↓) is on the upper cartouche and runs:

*Memoriæ chariſſimæ et lectiſſimæ conjugis Jonetæ Robertson quæ
ex partus dolore ſummo cum fuorum luctu die menſis 13 ſept/ anno
domini 1644 ætatis autem ſuæ 28 fatiſ ceſſit/ monumentum hoc cæd/
endum curavit Magiſter Jacobus Martinus euan/ gelii miniſter*

= "In memory of his dearly loved and most excellent wife, Janet Robertson, who died in childbed amid the profound grief of her relatives on Sept. 13, A.D. 1644, the 28th year of her age, James Martine, M.A., minister of the gospel, had this tombstone carved." On the lower cartouche are two elegiac couplets, separated by a blank space of 5 inches:

*Caſta gravis fœcunda deo dilecta marito
Fida ſub hoc recubat marmore clauſa nurus*

= "Imprisoned beneath this stone lies a young matron chaste, serious-minded, prolific, dear to God, loyal to her husband," and

*Sin fati genus inſpicias uteriq : laborem
Æmula phœnicis vixit et interiit.*

= "But, if regard be had to the manner of her end and the travail of her womb, in life and in death she rivalled the phoenix." In the penultimate line *uteri* has hitherto been mis-read as *vita*. The correction illuminates the point of the allusion to the phoenix.

Of the ten children whom the lady bore in her married life of as many years, only a son and a daughter grew up. The former, George Martine, who was Commissary Clerk of St Andrews from 1666 to 1690 and Town Clerk from 1673 to 1682, was the compiler of *Reliquiæ Divi Andrew*, referred to *supra*, p. 46.

¹ *Theater* (1713), pp. 120 f.

No. 6.—John Lundie. R.S. 5 feet 9½ inches by 3 feet 1 inch.

This stone is unusually plain, the leading feature being an inscribed panel, which extends all the way across the face. There are two volutes on the upper and two on the lower side, but the ends merge without ornament into the narrow band which forms the border of the whole. Above the panel, flanking a shield, the device on which is no longer decipherable, are the raised initials **I L**, above, and **M L**, beneath, the latter being those of Margaret Lenton, Lundie's wife. Beneath it, again, is a skull, with a turfig-iron and a spade, in saltire, on the dexter side and cross-bones on the sinister side. On the upper part are the lines:

*Stirpe satum clara, justi verique tenacem
Oforemq̄e doli, jam capit urna virum
quem vivum coluere probi, planxere cadentem
pronus quippe æqua ducere fræna manu*

=“Now is there gone down to the grave a man sprung from a famous stock, a firm adherent of justice and truth, whom good men honoured in his life-time and lamented when he died, since he was ever intent to guide the reins with an impartial hand.” After an interval there follows the epitaph proper:

*Hic situs est johannes lundius/ qui obiit an : dom : 1671 ætatis
æfu 44/ balivatum andreap : per septennium/ tenuit*

=“Here lies John Lundie, who died in the year of our Lord 1671, the 44th of his age. He was a bailie of St Andrews for seven years.”

No. 7.—William Barclay and his wife Eupham Lermonth. C.S. 7 feet 6 inches by 3 feet 10½ inches.

On a narrow panel in the centre is a skeleton, over the head of which is a scroll, inscribed **CARO FOENVM** (“All flesh is grass”), and beneath the feet a hand holding a bell. In the top compartment, supported by two angels, is a shield flanked above by **W B** and beneath by **E L**, all four in relief (↑). The shield is parted per pale and charged: Dexter, three crosses paty; sinister, a chevron between three mascles. In the compartment at the bottom, each above a thigh-bone laid transversely, are two skulls side by side, flanked by a spade and a turfig-iron, in saltire, and two coffins, also in saltire, and having over and between them a scroll inscribed **MORS SCEPTRA LIGONIBVS ÆQVAT** (“Kings and peasants are equal in the eyes of Death”); over this scroll is a winged hour-glass surmounted by a second scroll, reading

VIVIT POST FVNERA VIRTVS ("Virtue lives beyond the grave"). The dexter compartment contains a scrolled cartouche, displaying an oval panel, on which are the first four lines of the epitaph (→); to the left is a male figure (→) advancing l. towards an open book, holding a trumpet to his lips with his r. hand and an hour-glass in his l., while to the right is a figure of Time (→) r., carrying a scythe, straddling an hour-glass, and having over his head a scroll with **TEMPVS**. The remaining three lines of the epitaph (←) are on a similar and similarly placed panel in the sinister compartment, but in this case the spaces at the end are respectively occupied by a large volute and by the half-length figure of an angel (←) to front with open wings. The text of the epitaph is:

HEERE . LYES . WILLIAM . BARCLAY/ SOME TYME BAYLIE
OF THIS CITY/ WHO DIED 23 8BR¹ 1641 AND/ OF HIS AGE
76 AND EPHAM/ LERMON¹ . HIS . SPOVS/ WHO . DYEED .
17 . 7BER . 1613/ AND . OF . HER . AGE . 34.

Everything is in relief except the last two figures of 1613, which have been re-cut and incised. An error in the date of death of the wife is not surprising, seeing that the stone was not carved until nearly thirty years after it took place.

No. 8.—John Miniman. C.S. 7 feet 2½ inches by 3 feet 3 inches.

Within a plain frame-work of lines, in the lowest part of the central panel, are the raised letters **AD**, initials of the widow (cf. **No. 1**), who was presumably responsible for erecting the memorial. The rest of the panel is occupied by the main inscription (→), arranged in six lines.

HEIR . LYES . ANE . CHRISTIANE . VERTEVS . / MAN . IOHN .
MINIMAN . MELMAKER . VHO . DEPAR/ TED . THES . LYF .
THE . 15 . OF . OCTO . 1657 . AND . OF . / HIS . AGE . 62 .
BLESSED . IS . THE . DEAD . THAT . DIE . IN . / THE . LORD .
FROM . HENCEFOURTH . THEY . REST . FROM . / THER .
LABOVS . AND . THER . VORKES . DOE . FOLLOV . THEM .

In the compartment at the top are Miniman's own initials **IM**, in relief (↓), with a cherub's head (↓) above them. In the compartment at the bottom is an hour-glass, flanked by skulls, and, beneath it, a shield, flanked by a spade and a turfing-iron, in saltire, and cross-bones. The shield is charged: In chief two mullets; in base a crescent. Each of the two other compartments contains a narrow panel displayed on

¹ A stone-cutter's mistake for **ER**.

a cartouche bordered with vine-leaves and grapes, that on the dexter side being inscribed (→) **MORS VLTIMA RERV** ("Death is the end of things") and that on the sinister side (←) **MEMENTO MORIE**.¹

No. 9.²—John Carstairs. R.S. 6 feet 3 inches by 2 feet 9 inches.

A scrolled cartouche, cut in high relief, has above it a skull, surmounted by an hour-glass, with a spade and turfing-iron, in saltire, in the dexter space and cross-bones in the sinister space, while beneath, surmounted by a cherub and flanked by **I C** in relief, is a shield charged: A chevron couped between three sun-flowers slipped; in chief, a sun in his splendour. The cartouche displays a panel on which is inscribed in thirteen lines:

INGENVVS ATQVE/ OPTIMÆ SPEI/ ADOLESCENS/ IOANNES
CARST/ARIVS FILIVS/ VNICVS ET CHA/RISS. IACOBI
CAR/STARII MERCA/TORIS BALIVI/ ANDREAPOLI/TANI.
OBIIT 11/ IAN. AN. DO. 1653/ ÆT . 18

= "A fine and most promising young man, John Carstairs, only and much loved son of James Carstairs, merchant and bailie of St Andrews. Died 11th Jan. A.D. 1653, aged 18." Then comes the word **CHRONOGRAMMA** and, in two lines, **MICVI VIX VIXI I/ DIXI** ("I shone for a brief moment. I hardly lived. Go thy way. I have spoken"), which can be arranged to give the date 1653 in Roman numerals.

The broad raised margin, which is left all the way round, has a rosette at each corner and is inscribed as follows. At the top (↓) and at the bottom (↑) are the texts—**I KNOW THAT MY REDEEMER LIVETH IOB . 19 . 2[5]** and **DEATH IS SWALLOWED V[P] IN VICTORY 1 COR [1]5 . 5[4]**. The dexter side is divided into two panels, on each of which is an elegiac couplet (→), in which the parents address their dead son:

NATE PATRIS MATRISQVE AMOR ET SPES VNA SENECTÆ
QVAMDIV VITA FVIT NVNC DOLOR ET LACHRYMÆ
ACCIPE QVÆ MÆSTI TIBI SOLVVNT IVSTA PARENTES
FVNERE NATVRÆ VERTITVR ORDO TVO

= "Son, love of thy father and mother and the one hope of their old age so long as thou wert alive, now their grief and sorrow, accept the tribute thy afflicted parents pay thee. Thy death is a reversal of Nature's order." And on the sinister side are two similar couplets (←), in which the son replies:

¹ For a similar mis-spelling see **No. 35**.

² This stone is partly visible in **Fig. 2**.


CHARE PATER LVCTVM MATER CHARISSIMA PLANCTVS
SISTE PIIS PLACIDAM MORS DAT IN ASTRA VIAM
ANTE DIEM MORIOR NVLLA HINC DISPENDIA NON TAM
MORS NOCET ANTE DIEM QVAM BEAT ANTE DIEM

= "Dear father, stay thy mourning and thou, dearest mother, thy lamenting. To the godly, death opens a peaceful path to Heaven. I die before my time. In that there is no loss. When death comes before one's time, the loss it inflicts is outweighed by the happiness it brings before one's time."

For the tombstones of the lad's father and mother see **Nos. 13 and 19.**

No. 10.—James Morton. R.S. 6 feet $6\frac{1}{2}$ inches by 3 feet $3\frac{1}{2}$ inches (Fig. 2).

The epitaph is marginal and is interrupted only by a rosette at the bottom sinister corner.

 HIC · IACET · VIR · PIVS · / ET · PROBVS · IACOBVS ·
MORTOVN · CIVIS · S · ANDR(E)Æ / ET · SENATOR · QVI · OB/
IIT · 16 · IVNE · ANNO · DOM · 1630 · ÆTATIS · SVÆ · 53

= "Here lies a godly and honest man, James Morton, citizen and town councillor of St Andrews, who died June 16th, 1630, aged 53." Within are two panels, the upper one of which bears the quatrain:

ERVDIENS · NATOS · DIV(I)N/AM · DISCERE · LEGEM · /
HOS · IVBET · ET · DOMINI · / IVSSA · VERENDA · SEQVI · /
VXOREM · VERBIS · QVOQVE · / CONSOLATVS · AMICIS · /
COMMITIT · SVMMO / SEQVE · SVESQVE ·¹ / DEO

= "Giving counsel to his children, he bade them learn the law of God and observe the dread commandments of the Lord. His wife, too, he comforted with friendly words, and then committed himself and his family to the Almighty's care." A couplet on the lower panel completes the story:

POSTREMO · MANIBVS · / TENSIS · AD · SIDERA · / C(O)ELI ·
HANC · ANIMAM · / DIXIT · SVSCIPERE · QV(A)ESO · / PATER

= "Finally, with hands stretched up towards the stars of Heaven, he said, 'Father, I pray Thee, receive my spirit.'" The word **PATER** is between the letters **B G**, presumably the initials of Morton's wife.

In the space between the panels is a shield, flanked by the raised initials **IM** and charged: A chevron between three torteaux. Above each initial is a rose on a stalk with two leaves, and beneath is a sun-flower. Below the lower panel is an anchor between a compass and

¹ Obviously a stone-cutter's mistake for **SVOSQVE**.

an hour-glass. The compass and anchor suggest that Morton had some connection with the sea.



Fig. 2. No. 10.

No. 11.—Unappropriated. R.S. 5 feet 8 $\frac{1}{4}$ inches by 2 feet 5 $\frac{3}{4}$ inches.

This is an elaborately decorated stone, rather smaller than the average. The spaces left for the epitaph and for the coat-of-arms are both rather inadequate, and neither has been filled.

No. 12.—James Bonar, with his wife, Euphemia Kinneir, and two daughters.

R.S. 6 feet 8½ inches by 3 feet 1½ inches.

The illustration (Fig. 3) renders unnecessary any verbal description of the ornament. Unfortunately the etcher has failed to



Fig. 3. No. 12.

copy the lettering quite accurately. The correct text is as follows:—

*Hic fitus est jacobus/ Bonar Comarchus [de] Rosie/ qui feb. 11 ano :
1653 ætatis/ suæ 74 mortalitatem/ explevit nec non ipsius/ uxor
Euphemia Kinneir/ filia Comarchi de Kinneir/ simul et duæ eorum
filix/ Isobella et Helena/ Bonar*

—"Here lies James Bonar, laird of Rosie, who died on Feb. 11 in the year 1653, the 74th of his age. Also his wife Euphemia Kinneir, daughter of the laird of Kinneir, as well as their two daughters, Isobel and Helen Bonar." It will be observed that, as happens elsewhere, the initials of the husband are in relief, while those of the wife are incised. The upper shield is charged: A saltire coupé, in base a crescent; the lower one: On a bend sinister between two sexfoils three double-headed eagles displayed.


No. 13.—James Carstairs. Also David Carstairs and his two wives, Violet Annal and Janet Carstorphen. R.S. 6 feet 2 inches by 2 feet 10 $\frac{3}{4}$ inches.

A scrolled cartouche displaying an inscribed panel, is surmounted by a cherub and has one or two folds of drapery beneath. Below is an hour-glass over a skull and cross-bones, these symbols being flanked by **I C** for James Carstairs, by **C B** for his wife, Christian Brydie (*cf.* **No. 19**), all four letters raised, and by a spade and a turfing-iron. The whole is enclosed within a broad flat margin. There are two stages in the history of the monument.

The original inscription on the panel belongs to 1671 or 1672. It runs:

*Heir lyes James Carstai/rs baillie of [St] andreus Who/ departed
the 29 of sep/ 1671 and of his age 89/ years.*

Four marginal inscriptions are of the same period. Above is *dormiens in Jesu* ("Asleep in Jesus") and at the bottom *Placide quiesco* ("I rest in peace"), while in compartments at the sides are eight lines of verse, arranged in couplets which begin in the top dexter half and end in the top sinister half, → and ← respectively:

 *Reader Who on this stone Doſt caſt thine eye
Doe not forget the Bleſſed memory
of Baillie james carstairs to whom God did impart
A candid mind without a double heart*

*To vertue grace and honesty inclind
 To all his frinds [m]of[t fin]gularly kynd
 He wisely did with all men follow peace
 At length expir'd full both of years & grace.*

Nearly half a century later the stone was used to commemorate David Carstairs, who cannot have been a son of James¹ but may have been a nephew, and also his two wives, the new inscription being made to follow continuously on the original epitaph:

*& David Carstairs| maltman in Standreus Who| departed this life
 the 28| of march 1718 of his| age 73 also his wives Violet| Annal &
 Janet Carstorphen.*

Immediately beneath is added the quatrain:

*o let y^m rest to memory|full dear|
 Till y^e Redeemer in t[he]|Clouds appear|
 the Heaven the poor y^e|World and y^e Grave|
 Their souls y^r alms y^r|Praise y^r bodies have.*

No. 14.—Henry Sword. R.S. 6 feet 6 inches by 3 feet 4 $\frac{3}{4}$ inches.

This is an unusually plain stone. The inscription reads:

HEIR . LYES . THE . CORPS . OF . HEN/RIE . SVORD . ANE
 . OF . THE . BAILLES . / OF . THIS . CITIE . WHO . DEPAIRTED
 . THES . / LYFE . VPON . THE . TENT . DAY . OF . / IANEVARIE
 . IN . THE . YEARE . 1662 . / AND . OF . HIS . AGE . 50 . YEIRES.

Below is the verse:

IN . S . NAME . A . SVORD . WAS . SEIN .
 IN . S . OFFICE . IS . THE . LYKE .
 EVEN . IVSTICE . SVORD . I . MEANE .
 EIVELL . DOERS . FOR . TO . STRICK .
 THE . SVORD . DOETH . OFTEN . KILL .
 AND . SHEDDETH . GVILTLES . BLOOD .
 THIS . SVORD . DOETH . NO . SVCH . EIVELL .
 BOT . TO . THIS . CITIE . GOOD.

Above the inscription is a shield supported by two cherubs (→ and ←). It is parted per pale. The sinister half is illegible, if indeed it ever bore a device at all. The dexter half is charged: In chief a crown; in fess a heart transfixcd with two daggers saltire-wise; in base a sexfoil.

¹ The epitaph shows him to have been born in 1645, and he was thus eight years old when James's only son died (No. 9).

The shield is flanked by **HS** for Henry Sword and by **CD** for Catherine Dewar, his wife, the husband's initials being uppermost. Below the verse is an hour-glass laid transversely above a skull, with cross-bones on the dexter side and a spade and a turfing-iron, in saltire, on the sinister side.

No. 15.—Alexander Steuart and Margaret Chisholm, with two of their children. R.S. 7 feet 5½ inches by 3 feet 6½ inches.

This slab is very difficult to decipher, but a close scrutiny shows that Monteith's reading¹ is, in the main, correct. At the top is a scrolled cartouche, displaying a shield flanked by the initials **AS** and **MC**, both in relief, and parted per pale. The dexter side seems never to have been charged, but the sinister side bears: A boar's head coupé, for Chisholm. The inscription is on a panel displayed on a much larger cartouche, which occupies the centre of the slab. It runs:

*Monumentum Alexandri Steuarti/ Priorastæ andreapolitani ac
Senescal/atus Fifani regii Quæstoris fidi/ffimi nec/non honoratiffimæ
Conjugis Margaretæ/ Chisholme qui pari ætate annorum/ uterque 72
mortem obiere anno 1661 et liberorum/ Gualteri et Elisabethæ Steuartæ
quorum/ hic 25 1650 illa 22 ætatis 1657 obiit/ quibus Joneta Steuarta
filia superstes/ hunc cippum cædi curavit*

= "The monument of Alexander Steuart, a most conscientious Treasurer of the Priory of St Andrews and of the Royal Stewartry of Fife, and also of his most highly esteemed wife, Margaret Chisholm, who both died at the same age of 72 in the year 1661, as well as of their children, Walter and Elizabeth Steuart, the former of whom died in 1650, aged 25, and the latter in 1657, aged 22. Janet Steuart, their surviving daughter, had this tombstone carved in their memory." A little way below is the elegiac couplet:

*Qui paribus vixere animis annisque cadentes
par tenet hos tumulus quos tulit ante torus*


= "One in heart and one in years they lived and, now that they are dead, one tomb holds those whom one couch erstwhile sustained."

Beneath the principal cartouche is an hour-glass, flanked by two skulls with cross-bones.

No. 16.—Thomas Horsburgh. R.S. 5 feet 10½ inches by 3 feet 1 inch.

This much-weathered stone has a marginal inscription:

¹ Theater (1713), p. 104.

 H[¹]ER · SLEEPES · ANE · / VERTVOVS · AND · GODLIE ·
 BROTER · THOMAS · HOR/SBROVGH [· QWHA · LI/VED
 · BLAME]LES¹ · AND · DIED · HAPILY · 1629 · AG · 68.

The letters are in relief, as are those of the text which occupies the upper portion of the enclosed space:

[BLESSE]D · AR · THEY · TH/AT D[IE · IN ·] THE · [LO]RD · /
 FO[R · THEY · R]EST · FROM · /T[HEIR · LAB]OVRS · AND ·
 [T]HEI[R · VORKS · DO · FO]LLOV · /THEM.

Beneath the text is a shield, flanked by the raised letters **TH** and charged: A courser's head and neck couped; in chief two mullets; in base a heart. Still lower down is a second and smaller shield, flanked by the letters **MC**, also in relief, and charged: Three mullets between two hounds' heads erased in chief and a hunting-horn in base. The second set of initials are those of Margaret Corstorphine, Horsburgh's wife. At the bottom are two skulls, side by side, and above them the legend [MEM]ENTO MORI.

No. 17.—Henry Stirling, Master of Arts. R.S. 7 feet 1 inch by 3 feet 10 $\frac{1}{4}$ inches.

This stone is extremely difficult to read. Round it there is a plain border, the upper part of which is encroached upon by the scrolls of a large cartouche, surmounted by the letter **M**² and flanked by the initials **HS**, all three in relief. On the cartouche is the inscription which, so far as it is decipherable, reads:

HENRICVS IACET/ HIC STERLINGVS/ CORPORE MENTE/
 COELICOLA EST/ FACTVS PER CHRIS/TVM DOTIBVS AVC/TVS
 TVS/

= "Henry Stirling lies here in the body. In spirit he has become through Christ a dweller in the Heavens. Enriched with gifts"
 When Monteith (who is followed by the *Catalogue*) saw the slab in 1713, it was evidently much in the condition in which it is to-day. He omits the **G** of the surname. Nor does he seem to have observed that the epitaph was intended to be metrical, for he also omits **EST**, although it is easily enough seen, if it is looked for. At the beginning of the third hexameter—there is hardly room for more than three—he reads

¹ The words supplied here, though they make good sense, can hardly be right, as they would not quite fill the space.

² For *Magister* see footnote (p. 50).

PRAECO DISERTVS, which is certainly wrong, and translates "an eloquent preacher," a rendering which has given rise to the unfounded idea that Stirling was a minister. Further than that he does not attempt to go.¹

Beneath the cartouche, and between cross-bones, on the one side, and a spade, a mattock and a turving-iron, arranged crosswise, on the other, is Death, holding an hour-glass and his "sting," the lower side of the cartouche having an arched recess for his head and shoulders. Beneath these, again, surmounted by **M** and flanked by **HS**, all three being raised, is a shield parted per pale. The dexter half seems to be blank, but the sinister half shows a sword in pale, hilt downwards, along with a saltire, and has in base a crescent. A scroll above the head of Death has borne an inscription, probably **MEMENTO MORI**.

No. 18.—John Young. R.S. 7 feet 1 inch by 3 feet 8 $\frac{3}{4}$ inches.

The epitaph is marginal:

HEIR . LIES . ANE/ HONNEST . AND . GODLY . MAN .
IHON . ZOVN/G . PO[RTI]ONAR . OF . / BYRHILLS . DECESSED .
3 . FEB . 1632 . AG . 44.

Within, enclosed by a plain surround, is a panel, on the upper part of which, also in raised capitals, are eight lines, which can be arranged as a quatrain:

HIS . VERTVOS . LYF . ANE/ HAPY . DEATH . DID . CRO/VN.
BELOVED . OF . ALL . HE . / LIVED . DIED . VITH . RENVN . /
HIS . CORPS . THIS . EARTH/ HIS . SOVL . THE . HEAVEN . CON/TENIS .
HIS . VORTH . STILL . IN . / THE . MOVTH . OF . FAME . REMEINS .

Immediately beneath is a shield, flanked by the raised letters **I Z** and charged: Three piles; in chief, three roses (?). Beneath this again is a second shield, flanked by **C D**, also in relief, and bearing: A rose (?) between three mullets. Under each of the upper initials is an hour-glass, and under each of the lower ones—which are those of Christian Donaldson, Young's wife—is a quadrangular ornament, quartered. At the bottom, side by side, are two skulls, each having above it a scroll which seems once to have borne an inscription—probably **VIVE MEMOR LETHI** and **TEMPVS FVGIT** respectively.

¹ *Theater* (1713), p. 110.

No. 19.—Christian Brydie. Cf. Nos. 9 and 13. R.S. 6 feet 2½ inches by 2 feet 10 inches (Fig. 4).

The epitaph runs round the margin:

HEIR LYETH A CHRISTIAN CHRIS-
TIANE/ BRYDIE SPOVS TO JAMES
CARSTAIRS BAILLIE OF ST ANDREWS
DECEASED ANNO/ MDCLV OF HER
AGE XLVIII/ HAVEING LIVED WITH
HER BELOVED HVS BAND XXVI
YEARES.

In the centre are the half-length figures of husband and wife, side by side, with hands clasped, and beneath them is a scrolled cartouche displaying a panel which bears a punning distich:

THOUGH IN THIS/ TOMBE MY BONES/
DOE ROTTING LY/
YET [RE]AD MY NAME/ FOR CHRIST
ANE/ BRIDE AM I.

Immediately after the last word is the date 1655. At the top (↓), flanked by the initials CB, is a shield which is charged: On a bend sinister coupé, three mullets. At the bottom (also ↓) is a skull, surmounted by an hour-glass, and flanked by cross-bones and a spade and a turving-iron in saltire.



Fig. 4. No. 19.

No. 20.—William Methven. C.S. 7 feet 2¼ inches by 3 feet 3 inches.

The surface has been considerably damaged. Fortunately, however, the missing parts of the inscription can be more or less certainly restored through comparison with No. 24, to which the stone bears a close general resemblance in many ways. In the *Catalogue* it is described as a joint-memorial to Methven and his wife, but that view of it rests on a mis-translation of the *conjugis* of the epitaph. The husband alone is commemorated here.

The whole is surrounded by a scalloped border. Little remains visible on the narrow central panel except a spade, a turving-iron and a mattock, arranged cross-wise, at the upper end, but at the lower end one can see what may be part of the initial M in relief (→) and below

it a tablet that seems once to have borne an inscription. In the compartment at the top, within a floriated border, is a shield (↓), flanked by the raised initials **WM** (↓) and charged: In chief, a cross-crosslet issuing from a crescent; in base, a heart within a chevron. In the compartment at the bottom, supported by two angels and flanked by the raised initials **IC** (for Isabella Carstairs), is a shield charged: Five cross-crosslets, accompanied by four mullets, three in fess and one in base. The first five lines of the inscription are in the dexter compartment (→), the rest on the other side (←). All the lettering is raised.

BEATÆ · MEMORIÆ · ADOLESCENTIS · / GVLIE(L)MI ·
 METHVEN · MERCATORIS · ANDREA/NI · IVXTA · POSITÆ ·
 ISABELLÆ · CARSTAIRS · CON/IVGIS · HIC · [R]EPONVNTVR ·
 EXVVIÆ · PRÆSTOLANT/ES · GLORIOSVM · DOMINI ·
 ADVENTVM · QVANDO · / SPIRITVS[· SANCTVS · VT · DIGNVM ·
 BONÆ ·] FIDEI · / CVSTODE · IN[· SEMPITERNVM · FELICITE]R ·
 PERP/ETVO · BEATOQVE · C[ONIVGIO · ANIMAM · CO]RPORI¹ ·
 IVNG/ET · DENVQ · OBIIT · 30 · DIE · APRILIS · ANNO ·
 SALVTIS · 1636 · ÆTA/TIS · SVÆ · 27

= "To the blessed memory of William Methven, a young St Andrews merchant, husband of Isabella Carstairs who is buried close at hand. His remains rest here, awaiting the glorious coming of the Lord, when the Holy Spirit, as beseems the Guardian of Good Faith, will happily reunite soul to body for all eternity in an abiding and blissful union. He died on the 30th day of April in the year of our Salvation, 1636, the 27th of his age."

On the authorship of the foregoing epitaph, see under **No. 24**.

Although the words printed in lighter capitals are conjectural, they give a reasonable sense and they contain the required number of letters. The expression *bonæ fidei custos* is unfamiliar. That it is an epithet of the Holy Spirit is clear from **No. 24**. Professor Souter, who tells me that it does not occur in the Vulgate, suggests that there may be a reminiscence of 2 Timothy, i, 14.

No. 21.—David Goodlad. R.S. 5 feet by 1 foot 11 inches at the top and 1 foot 7 inches at the bottom.

Rather below the centre are two shields *accollés*, the devices on which are now indecipherable. Otherwise there is no ornament, except a plain border and the raised bands which divide the lines of an inscription in relief. Seven of the latter are above the shields and six below.

¹ Cf. Lucretius, *De Rerum Natura*, Bk. iii. ll. 845 f.

HEIR · LYIS · ANE/ HONEST · MAN ·/ DAVID · GVDLA/D ·
 QVHA · DECE/ISSIT · THE/ MONETH · OF/ IVNII · THE/ ZEIR ·
 OF · GOD ·/ 1594 ·/ AND · OF ·/ HIS · AGE ·/ THE · 48 · ZEIR.

Dr Hay Fleming notes that this "honest man" was one of the jury who in May, 1588, found Alison Peirsoun of Byrehills guilty of witchcraft, a crime for which she suffered the usual penalty.

No. 22*.—John Anderson, Master of Arts. C.S. 6 feet $1\frac{1}{2}$ inches by 3 feet 1 inch.

This stone is plain and narrow, but the different divisions of its surface are defined by the scrolls of two cartouches, which fill the side compartments and display inscribed panels. In the compartment at the top (↓) are the letters **M I A**, all in relief, surmounting and flanking a shield charged: A saltire cantoned with a crescent and three mullets. The same three letters reappear, also in relief, in the compartment at the bottom, where they surmount and flank a skull and cross-bones. The epitaph proper is in three lines in the dexter compartment(→).

*Hic situs est in spem beatæ Resurrectionis/ Magister joannes
 Anderson qui obiit Anno/ MDCLXX · ætat · XXVI · ID · nov*

= "Here lies in the hope of a blessed resurrection John Anderson, M.A., who died Nov. 13th, 1670, aged 26." Then follow six elegiac lines, the first couplet on the central panel (←) and the remaining two in the sinister compartment (←):

*Qui invenis¹ priscam discebat Pæonis artem
 Occidit in Parcas pharmaca nulla valent
 Ex humili virtus sublimè vexit et alta
 Sede beans pietas et probitatis amor
 Mens adiit cælos sacra quos Concordia cultus
 Incolit hic cineres cippus et ofsa tegit*

= "He died when apprenticed to the ancient art of the Healer. No drugs are of any avail against the Fates. From a lowly place Virtue carried him on high and Piety, that rewards him with a lofty seat, and Love of Uprightness. His soul has entered Heaven, home of the holy Harmony of Worship. His mortal remains are beneath this stone."

No. 23.—John Couper. C.S. 6 feet $7\frac{1}{2}$ inches by 3 feet $3\frac{1}{2}$ inches.

In general design this stone resembles **No. 28** to a degree that leaves little or no doubt as to their being the tombstones of husband and wife.

¹ A mistake for *iuvenis*.

Any device which the central panel may have borne has long since disappeared. In the compartment at the top, flanked by the raised initials **I C**, is a shield charged: A bend engrailed between six fishes, three counter-naiant and three counter-haurient. The compartment at the bottom contains an hour-glass laid transversely above a skull and cross-bones, the whole flanked by a spade and a turfing-iron, in saltire, and two coffins, also in saltire. In each of the other compartments is a scrolled cartouche displaying an inscribed panel. The one on the dexter side is supported on the left by an angel (→) and reads (→):

HEIR LYES ANE HONEST MAN STYLED/ IHON COVER
SOMETIME MALTMAN/ CITINER IN SANCTANDROIS WHO
DEPARTIT/ HIS LYF VPON TE FIRST OF IVN 1644 AND OF
HIS/ AGE 55.

The one on the sinister side is supported on the right by Time (←), carrying a scythe and having **TEMPVS** above his head, while in this case the inscription runs (←):

WAITING FOR GLORIOVS APPEAREING/ OF THE GREAT GOD
AND OUR SAVIOUR/ IESVS CHRIST¹ MEMENTO MORI.

No. 24.—Christian Wood. C.S. 6 feet 7 inches by 3 feet 9 inches.

Attention has already been drawn to the close resemblance between **No. 20** and this well-preserved stone. Both have the same scalloped border. Here the greater part of the narrow central panel is occupied by Death in the form of a skeleton, standing above an hour-glass and holding his "sting" in his hand, with a **MEMENTO MORI** scroll over his head; at the upper end is a skull, and at the lower end (←) **I W** and **E D**, the initials of the parents. In the compartment at the top are the raised letters **C W** (↓), surmounting a shield (↓), supported by angels (↓) and charged: A tree eradicated. In the compartment at the bottom is Time, having over his head a scroll with the legend **TEMPVS** and straddling an hour-glass, the whole flanked by **C W**. The long inscription is divided between the dexter (→) and the sinister (←) compartments, seven lines in each. All the lettering is raised.

BEATÆ . MEMO[R]IÆ . ET . EXIMIÆ . PIETATIS . VI/RGINI .
CHRISTIANÆ . SLVÆ . CHRISTIANÆVM . VI/RTVTVM . SYLVÆ .
CVIVS . HIC . REQVIESCVNT . EXVVIÆ . / PRÆSTOLANTES .
SANCT9² . GLORIOSVM . DOMINI . / ADVENTVM . QVANDO .

¹ The A.V. of *Titus* ii. 13, has "looking for" and so have all the other English versions except Wycliff's, where "abiding" is used. The variant "waiting" is therefore a chance one.

² This word has been misplaced by the stone-cutter. It should, of course, follow the final **S** of **SPIRITVS**, not the final **S** of **PRÆSTOLANTES**. The use of the contraction **9** for **VS** suggests that in the original the word came at the end of a line.

SPIRITVS . BONÆ . FIDEI . CVSTOS . / EAS . REDDET . ANIMÆ .
 GLORIOSAS . GLORIOSE . INDVNDAS . ET . CVM . / BEATA .
 BEANDAS . IN . ÆTERNVM . PARENTES . IACOBVS . SYLVIVS . ET . /
 ELIZABETHA . DVDINGSTONE . MÆARENTES . POS/VERVNT . HOC .
 MONVMENTVM . ÆTATIS . SVÆ . 18 . OBI/IT . FEBRVAR 11 .
 ANNO . SALVTIS . HVMANÆ . 1636 . PRV/ENTIA . HOMINIBVS .
 EST . CANITIES . ET . VITA . IMMACVL/[A]TA . EST . SENILIS .
 ÆTAS . GRATA . ERAT . DEO . ANIMA . IPSIVS . / PROPTEREA .
 FESTINAVIT . EAM . TOLLERE . EX . IMPROBIT/ATIS . MEDIO .
 SAP . 4 . 9 . 14

= "To a maiden of blessed memory and rare goodness, Christian Wood, a very wood of Christian virtues, whose remains rest here awaiting the glorious coming of the Lord, when the Holy Spirit, the Guardian of Good Faith, will restore them in glory to the soul, to be gloriously put on like a garment and to share its bliss for evermore, her sorrowing parents, James Wood and Elizabeth Dudingstone, erected this memorial. She died, aged 18, on February 11th in the year of Man's Salvation 1636. 'Understanding is gray hairs unto men, and an unspotted life is ripe old age. Her soul was pleasing unto the Lord; therefore he hastened to snatch it out of the midst of wickedness,' *Wisdom of Solomon*, iv. 9 and 14."

Dr Hay Fleming is probably right in suggesting that this epitaph was composed by Christian Wood's brother James, who became a Professor of St Mary's in 1645 and Principal of St Salvator's in 1657. It may be compared with the still more elaborate eulogy of his own wife, Katharine Carstairs, culminating in the anagram **CASTA RARA CHRISTIANA**, which was once legible on **No. 64**. Had Katharine not been an only daughter,¹ one might have conjectured that the Isabella Carstairs of **No. 20** was her sister, for the epitaph on that stone, too, seems to be from Wood's hand. Perhaps she was a cousin.

No. 25*.—**Janet Duncan.** Also **Mary Duncan.** C.S. 5 feet 11 inches by 3 feet 2 $\frac{1}{4}$ inches.

In the compartment at the top (↓) are a skull and cross-bones, the former flanked by an hour-glass and by a spade and a turfing-iron, in saltire, and the latter by the date **1681**, two digits on either side. In the compartment at the bottom is a boss upon a cruciform background, flanked above by the initials **AG** and beneath by the initials **ID**, all four being incised in double lines; outside of these, again, is, dexter, a maltman's shovel and, sinister, a three-pronged fork with what may

¹ *Catalogue*, p. 126.

be meant for a sheaf of barley beyond it. Each of the other compartments contains a scrolled cartouche, displaying an inscribed panel. That on the dexter side bears the epitaph, arranged in five lines (→):

*Here lyes ane pious honest and discret/ Womane Janet Duncan
spous to Andreu Gullan/ She was married to him 7 years and brought
fourth/ foure children one male and three famils depairted/ This lyfe the
14 of April 1681 and of her age 30 years.*

The panel on the sinister side has four lines of verse (←):

*Wnto thy rest my Soul returne and see
Thy blessed God with the dealls graciously
Fix thou thyn eyes upon thy King above
Who this intaills upon the matchlesse loue.*

In 1713 Monteith saw seven more lines of verse.¹ These were presumably erased in 1767, when the stone was re-used as a memorial to Mary Duncan, whose husband was perhaps a grandson of Janet. The later epitaph is on a central panel (→).

HERE LYS THE CO(R)PS OF MARY DUNCAN/SPOVSE TO
ANDREW GUILLAN MERCH/ANT IN ST ANDREWS, WHO
DIED VPON/ THE 4TH OF IANVARY 1767.

No. 26.—Hew Lyndsay, Master of Arts. R.S. 6 feet 9 inches by 3 feet $\frac{1}{2}$ inch.

This stone has been damaged by breakage and by weathering, the marginal inscription being left partly incomplete and partly illegible:

[E] HEIR . LYE]TH . A[NE . GODLY . HO]NEST . MAN .
M . HEW . LYNSY . QVHA . DIED . THE/ 5 . OF .
DECEMBER . 16/32 . BEING . OF . GOOD . AEGE

In the upper part of the enclosed space, within a double border, with floriated ornament, is an oval cartouche, displaying a shield, surmounted by M and flanked by H L, all three letters being raised. The shield is charged: Quarterly, 1st and 4th a fess chequy, 2nd and 3rd a lion rampant. Lower down, within a double border, is a circular cartouche, displaying a second shield, which is flanked by the raised letters I A, (for Janet Auchmowtie, Lyndsay's wife, who is known to have survived him), and charged: A dagger in pale; in chief, two mullets. Beneath are a spade and a turfig-iron in saltire, and beneath these again is

¹ Theater (1713), p. 118.

an hour-glass, on each side of which is a skull having below it a thigh-bone, laid transversely, and above it a scroll with a now illegible inscription.

No. 27.—James Kai. C.S. 6 feet $8\frac{3}{4}$ inches by 3 feet 3 inches.

In the upper compartment are cross-bones and a skull (\downarrow), surmounted by an hour-glass and flanked by a turfing-iron and a spade, and in the lower compartment a shield, which is surmounted by **IK** and flanked by **K F**,¹ all four letters being raised. The charge is: A two-pronged fork, a maltman's shovel and a sheaf of barley. On the central panel is the main inscription (\rightarrow):

HERE . IS . INTERED . THE . BODE . OF . AWE . HONEST .
MAN/ JAMES . KAI . MALTMAN . CITISEN . IN . ST
ANDRE[WS]/ WHO . DIED . THE . 1 . OF . MAY . 1682 . OF .
HIS . AGE . 65.

Each of the side compartments contains a panel with a large rosette at each end, the whole enclosed within a bead-and-reel framework. On these two panels is a version of a familiar quatrain, the first two lines (\rightarrow) on the dexter side and the last two (\leftarrow) on the sinister side:

REMEMBER . MAN . AS . THOW . GOES . BY
AS . THOW . ART . NOW . SO . ONCE . WAS . I
AS . I . AM . NOW . SO . MOST . THOW . BE
REMEMBER . MAN . THAT . THOW . MOST-DIE.

No. 28.—Elizabeth Dickson. C.S. 5 feet $8\frac{1}{2}$ inches by 3 feet.

In the upper compartment is a shield, flanked by **ED** and charged: A chevron between three mullets. The lower compartment contains a winged skull with a thigh-bone laid transversely beneath it, a coffin on the one side, and a spade and a turfing-iron, in saltire, on the other. On the central panel there remain slight traces of a skeleton. In each of the side compartments is an inscribed panel on a scrolled cartouche, that on the dexter side supported at the top by an angel (\rightarrow), that on the sinister side similarly supported by Time (\leftarrow) with a scythe. The first three lines (\rightarrow) of the inscription are on the dexter side, the last three (\leftarrow) on the sinister.

HEIR . LYES . AWE . HONEST . VOMAN . / CALED . ELIZABETH .
DICKSON . SPOVS . / TO . IHON . COUPER . ELDER . WHO . /
DEPARTIT . THIS . LYF . VPOON . THE . / FIRST . OF .

¹ These are the wife's initials. Her name does not appear to be known.

SEPTEMBER · IN · ANNO · 1643 · / AND · OF · HIR · AGE · 61.
MEMENTO · MORI.

The stone should be compared with **No. 23.**

No. 29*.—**Anna Briddie or Brydie.** C.S. 6 feet 3 inches by 3 feet.

There may have been lettering on the central panel, but it has completely disappeared. In the compartment at the top are cross-bones with a spade and a turfing-iron in saltire, the four so arranged as to have a common centre, and above these is a skull surmounted by an hour-glass, laid transversely, the whole being ↓. In the lower compartment is a circular cartouche, bearing a round boss and having over it a cherub. Each of the side compartments contains a scrolled cartouche displaying a panel, and the inscription is divided equally between these, beginning on the dexter side (→) and ending on the sinister side (←). Unfortunately the fourth and fifth lines are mutilated beyond recovery, some even of the readings here suggested being conjectural.

*Sub structura hujus sepulchri [dor]m[it in]/ fpe beatæ resurrectionis
lectiffima fœmina Anna/ Briddie filia Ioannis Briddie Decani Guildriæ
fponfæ/ [.]m[. . . m]ercato[r]is]an[.]/
libe[ralit]at[is r]eligionis et [. . .]atria/[.]/æ[tatis fuæ]
43 IVLII · 20 · Anno [Domini 16]48*

—"Beneath the fabric of this tomb there sleeps, in the hope of a blessed resurrection, a most admirable woman, Anna Briddie, daughter of John Briddie, Dean of Guild, wife of . . . merchant . . . liberality, religion and . . . aged 43, on the 20th of July A.D. 1648."

Fate seems to have been determined to conceal the name of this lady's husband. The copyist who entered her will in the *Commissariat Records* omitted it accidentally and then, finding that the lines were too close together to permit of its being inserted above, sought to remedy matters by simply deleting the words "spous of." **No. 34** is the tombstone of her father and mother.

No. 30.—**Elizabeth Honyman.** Table-Stone, 6 feet 8½ inches by 3 feet 7 inches.

Elizabeth Honyman, who died in 1681, was the wife of Ninian Fluckar. That this highly ornate stone was set up to her memory in 1683 is shown by the date which it bears, and that it was a table-stone is proved by the use made of its edges. It is not clear whether deliberate

erasure is responsible for the absence of an inscription, or whether the work was interrupted. Before his death in 1686 Ninian Fluckar had married for a second time.

A panel, now blank, displayed on a scrolled cartouche at the top, may have been intended for a text or motto, and another, also blank, similarly displayed at the bottom, for the epitaph proper. Between these is a heart-shaped cartouche, with elaborate strap-work, perhaps designed for a shield and flanked by **N F** above, and **E H** beneath, in large floriated capitals in relief. Under the lower cartouche is a circle, within which a hand, issuing from clouds, holds a pair of scales. The circle is flanked by a spade and a turfing-iron, in saltire, and cross-bones.

The date 1683, in the midst of a festoon of garlands, is repeated on the dexter and sinister edges of the slab, while on the edge at the top is a winged skull, resting upon an hour-glass, on each side of which is a scroll, that on the left bearing **VIVE MEMOR/ LETHI** and that on the right **FVGIT/ HORA**, the last word being in both cases uppermost. The edge at the bottom end is at present inaccessible.

No. 31.—Margaret Lyndesay. C.S. 7 feet $1\frac{3}{4}$ inches by 2 feet $4\frac{3}{4}$ inches.

This stone has a rounded top. In the upper compartment, flanked by **I W** (↑) and having **I L** (↑) beneath it, is an elaborately scrolled cartouche, displaying a shield (↓), parted per pale and bearing: Dexter, three escutcheons—for Hay; and sinister, a fess chequy, with two mullets in chief—for Lindsay. In the lower compartment are the raised initials **M L**, flanking the conventional symbols of mortality—an hour-glass and, beneath it, a skull placed at the point of intersection of cross-bones with a spade and a turfing-iron in saltire. Each of the side compartments contains a scrolled cartouche, displaying a blank panel. On the central panel is the inscription (→):

**MARGRETA HIC POSVIT PVLCHRVM LYNDESIA CORPVS
SOBRIA FIDA HAYI SPONSA COMESQVE DVCIS
OBIIT ANNO DOMINI 1653 ÆTATIS [?]6**

= "Here Margaret Lyndesay, the staid and loyal wife and companion of Major Hay, has laid her fair body. She died A.D. 1653, aged [?]6."

John Hay was a merchant in St Andrews when he set up the stone. But in her will his wife describes herself as "spous to Major John Hay." In point of fact, he had been Major in the Midlothian regiment of the Scots army which entered England in January 1644, and was one of the officers who "had served beyond sea before." The initials in the upper compartment have obviously no reference to him or his wife, but have

been added later. **L** may be for Lindsay and **W** (as Dr Hay Fleming hints) for Wedderburn. Possibly there was some idea of making the stone do service for a second time by utilising the blank panels at the sides. If so, the plan was never carried out.

No. 32.—John Millar. C.S. 6 feet 5 inches by 3 feet $\frac{3}{4}$ inch.

In the upper compartment, between **IM** above and **MW** beneath, is a scrolled cartouche of triangular shape, the design on which is completely effaced. All four letters are in relief and ↓. The same initials reappear in the lower compartment, this time incised, and with them is a skull in profile flanked by two thigh-bones, set diagonally, and having above it an hour-glass, laid transversely, and beneath it a spade and a turfing-iron in saltire. The dexter compartment contains the following inscription in four lines (→):

*in spem beatæ Resurrectionis, Hic terræ/ Mandatur quod mortale
Fuit IOANNIS MILLAR apud/ S'andreas causarū patroni consultiss.
ac in foro criminali ibidē/ protonotarii bene meriti*

= "Here is committed to the earth, in the hope of a blessed resurrection, all that was mortal of John Millar, a very learned lawyer at St Andrews, who won golden opinions as chief clerk in the criminal court there." A single line (→) on the central panel gives November 5, 1676, as the date of his death, and his age as 37. In the sinister compartment are four elegiac lines (←):

*Si simplex animi candor, si nescia fuci
Integritas nobis sternit ad astra viam,
Nemo te propius, frater, se æquabit olympo
Nam te candidior nemo nec integrior*

= "If frank sincerity of mind, if uprightness, innocent of all pretence, prepares our way to Heaven, no one, brother, will raise himself nearer to Olympus than you, for there is no one more sincere or more upright than you were."

No. 33*.—John Wilson and Janet Robertson. C.S. 6 feet $1\frac{1}{4}$ inch by 2 feet $11\frac{1}{2}$ inches.

Erected to commemorate John Wilson, Commissary Clerk of St Andrews, who died in 1666, and his wife, Janet Robertson, who survived him for less than a year. This we know from Monteith, who records the epitaph proper.¹ It must have been on the central panel, which is now hopelessly illegible.

¹ *Theater* (1713), pp. 122 f.

In the upper compartment is an hour-glass, with a skull in profile beneath it, flanked by two thigh-bones, set upright, outside of which are the initials **I W** above, and **I R** beneath. The letters are in relief, and both they and the symbols are ↓. In the lower compartment a shield, the device upon which is obliterated, is flanked by the same initials, similarly arranged, again in relief but ↑. Each of the side compartments contains a panel, displayed on a scrolled cartouche. Equally divided between the two are eight elegiac lines, which begin on the dexter side (→) and end on the sinister side (←):

*Hunc vitae integritas hunc mens et acerrima virtus
Omnigena cretant condecorare virum
Hic odit Scriba bifrontis bivia Jani
Conscribens sibi cur sæcla futura beent
Hac itur ad superos hac dum pulvisculus urna
Dormit im Exili Mens petit astra poli
Fæmina præclaris fata Civibus Ecce marito
Est confors tumuli quæ fuit ante tori.*

From the point of view of Latinity this is probably the most unsatisfactory inscription in the collection. It is here printed, as nearly as may be, as it appears on the stone. Some of the mistakes, such as *acerrima*, *cretant*, *Hac* and *im*, are certainly due to the mason. Others, however, may no less certainly be put to the account of the composer. In the circumstances a satisfactory translation is hardly possible, but the following is at least an approach to what was intended: "Him uprightness of life, intellect and virtue at its highest vie with one another to adorn, an all-round man.¹ As a lawyer, he hated the double ways of two-faced Janus, compiling for himself a record that should cause future ages to call him blessed. He passes hence ² to the world above. While his dust sleeps in a narrow grave, his spirit seeks the heavens. His wife, born of townfolk of repute, now shares her husband's grave, she who aforetime shared his couch."

No. 34.—John Brydie and Margaret Fairful.³ C.S. 6 feet 5 inches by 3 feet 3 inches.

This stone commemorates the parents of Anna Brydie (**No. 29**). In the upper compartment are the initials **I B** and **M F**, all four in bold

¹ Amending to *omnigenum certant*, the former a suggestion of Professor Rose.

² Reading *hinc* for *hac*.

³ Although the lady's name is mutilated on the stone, I have had little hesitation in completing it. The initial and the two last letters are certain, while there seems to be no other St Andrews name that would so exactly fill the gap.

relief, flanking a shield, which is parted per pale and charged (Fig. 5):



Fig. 5. Shield on No. 34.

Dexter, on a bend sinister coupé three mullets; sinister, three birds displayed (?),¹ on a chief, ? The shield is placed on a strap-worked cartouche, interlaced beneath with a cord which is carried upwards on each side, to twine round the initials and terminate in a large tassel, the shield thus depending, as it were, from the initials. In the lower compartment is an hour-glass, on the top of which is a cherub and at each side a skull with a thigh-bone laid transversely beneath it, the whole being flanked by two coffins, in saltire, and a spade and a turrying-iron, also in saltire. In the centre, displayed on a scrolled cartouche, is a narrow panel bearing a large

initial **B** (→) and an elegiac couplet (→), which has hitherto defied all attempts to decipher it:

ILLA RAPIT IUVENES PRIMA FLORENTE IUVENTA
NON OBLITA (RAPIT)² SED TAMEN ILLA SENES

= "Death carries off the young in the first flower of their youth. Nor does it forget the old, but carries them off also." As these lines are placed →, they are clearly meant to be read before the epitaph proper. The latter occupies the side compartments and is arranged in seven lines, the first four on the dexter side (→) and the rest on the sinister side (←).³

SVB · HOC · TVMLO · CONQVIESCVNT · PLAC[IDE · OSSA ·]/
VIRI · INTEGERRIMI · IOANNIS · BRYDE · ÆDILIS · [VR]B[IS ·]/
CVM · SVA · CHARISSIMA · CONIVGE · MARG[ARETA · FAIRF]UL ·

¹ No satisfactory identification of this much-worn charge is possible. In the *Catalogue* it is described as "three cushions," which does not seem at all possible. "Birds displayed" is at least not out of the question, and such a device would be an appropriate canting badge for the name "Fair-fowl." Thus, the registered coat-of-arms of Fairfoul of Westerlathland is "three parrots proper."

² I am indebted to Professor Rose for the convincing suggestion that **RAPIT** is the word that has been accidentally omitted. The antecedent to **ILLA** can only be *Mors*.

³ Some of the letters supplied here were still visible in Sir Lambert Playfair's time.

QVIB/V.S. . HVIVS . VITÆ . STAMINA . INCI[DERVNT .] FA[TA] .
 SVB . VNO . PÆ]NE . SOLE ./ POSTQVAM . ILLE . ANNOS .
 EXPL(E)VISSET . 74 . HÆC . 68/ ILLE . QVINTILIS . VLTIMO .
 OBIIT . HÆC . SEXTILIS . PRIMO ./ ANNO . INCARNATIONIS .
 DOMINICÆ . 1637

=“Under this tomb rest peacefully the bones of a most upright man, John Brydie, Dean of Guild of the town, along with his beloved wife, Margaret Fairful, the threads of whose mortal lives were severed by the Fates almost beneath one circuit of the sun, after he had completed 74 years and she 68. He died on the last day of July and she on the first day of August, in the year of the Incarnation of our Lord, 1637.”

No. 35.—Elspeth Donaldson. R.S. 7 feet $1\frac{1}{4}$ inches by 3 feet 6 inches.

This stone has a scalloped border. In the centre, fringed with strap-work, is an oval shield, much defaced but still showing a two-pronged fork. The initials **IC** and **ED** appear in relief, respectively above and below the shield. Above the former, again, is a cherub with outstretched wings, the tips of which are partly concealed by the heads of two female figures. The figure on the dexter side stands upon a skull with cross-bones beneath it, and bears the sword and scales symbolic of Justice. The figure on the sinister side wears a high head-dress and stands upon an hour-glass, with a spade and a turfing-iron, in saltire, beneath it. She seems to be grasping a bent Corinthian or Ionic column, which is, however, probably a mason's travesty of the cornucopie of Fortune. A long scroll, which stretches across the stone above the cherub, has in the centre **MEMENTO MORIE**¹ and at the ends a word descriptive of the figure beneath—dexter, **IUSTICIA**, and sinister, **FORTUNA**.² Over the scroll, on an inscribed panel, displayed on a scrolled cartouche, is the epitaph in eight lines.

HEIR . LYS . ANE . GODLIE . AWD ./ VERTEOVVS . WOMANE .
 ELSPAT ./ DONALDSONE . SPOVS . TO ./ IOHNE . CARSTERIS .
 MALTMAN ./ BVRGIS . IN SANTANDROVS . WHO ./ DEPARTIT .
 THIS . LYF . THE . 28 ./ DESEMBER . FE . ZIER . OF GOD .
 16/44 . AND . OF . HIR . AGE . 36 . ZIERS .

A similar panel at the bottom of the stone reads:


*Remem[ber] man als thou gois by
 [As thou] art nov so ons was I
 A[s I am] no so shall thou be
 [Remember man that thou] moft de.*

¹ For the misspelling cf. No. 8.

² The mason has apparently cut a superfluous **N** after the **R**.

No. 36.—Elizabeth Carstairs. R.S. 6 feet $1\frac{1}{2}$ inches by 2 feet 8 inches.

But for a space in the centre, reserved for an elaborate combination of monograms, the face of this stone is entirely occupied by sixteen lines of inscription in relief, separated by raised bands. The first ten of these are devoted to the epitaph proper, the last three of the ten being broken in the middle to admit of the insertion of the large monogrammatic device.

 OBIIT . ANNO . DO/MINI . 1595 . MENSIS . AV/TEM .
 OCTOBRIS . DIE . 4/ ÆTATIS . AVTEM . SVÆ . 28 . / ANO .
 PIA . ET . HONESTA . / FÆMINA . ELIZABETHA . / CARSTARIS
 NVPTA . QVON/DAM . IOANI . MER/CATORI PATRV/ELI SVO

—"On the 4th of October 1595 there died a godly and honest woman, Elizabeth Carstairs, formerly the wife of her cousin John Carstairs, merchant." The elements employed in the device are the letters of IOHN and IC and EC in various combinations. The six lines at the bottom form an elegiac couplet:

NATA PIO GENTORE/ PIO QVOQVE NVPTA/ MARITO/
 HIC PIA QVÆ FVIT/ ET FIDA ET HON/ESTA IACET

—"The daughter of a godly father, the wife too of a godly husband, here lies one who was godly and faithful and honest."

No. 37.—Thomas Phell. C.S. 7 feet $3\frac{1}{2}$ inches by 3 feet 10 inches.

There can hardly be a doubt as to the correctness of Dr Hay Fleming's suspicion that this very elaborate stone has been deliberately diverted from its original purpose by the representatives of the "honest man" whom it now commemorates. The central panel is unusually broad, and the various compartments, other than the one at the bottom, are marked off from their neighbours by a bead-and-reel border. In the upper compartment is a book, held open by two angels. In the centre of the lower compartment is a skull, with an hour-glass resting upon it, superimposed upon a spade and a turving-iron in saltire, while on the sinister side of this group, in two lines, is the motto MORS VITA/ FIDELIVM ("Death is life for the faithful"), and on the dexter side the emblems of the gardener—dibble, rake, and spade. That these emblems are an addition is certain, as the original surface of the stone has been cut away so that they may stand out in relief. The design in the two side compartments is uniform. At the top there is a curtain, in the middle a shield, and at the bottom a panel, displayed on a scrolled cartouche, all → and ← respectively. The shield on the dexter side

shows nothing but the remains of a boss. That on the sinister side is parted per pale and charged: Dexter, a fleur-de-lis between three lozenges (or mascles) in chief and a heart in base; sinister, a tree, apparently eradicated, and on a chief a crescent between two mullets. The impaled arms are in all likelihood original, and, as Dr Hay Fleming points out, they suggest that the stone was in the first instance intended to commemorate a Beaton or a Wardlaw who had married a Wood or a Watson.

The central compartment contains two panels, one above another, each displayed on a scrolled cartouche. Whatever the higher of them may formerly have contained, its surface has been tooled smooth, and the upper part of it cut back so as to allow the initials **TP** and **ES**, cut at the top, to stand out in relief. In the lower is the epitaph, arranged in ten lines.

HEIR . LYES ./ ANE . HONEST ./ MAN . THOM/AS . PHELL ./
GARDINER . WHO ./ DEPARTIT . THIS/ LYFE . IN . THE/
MONETH . OF ./ AGVST/ 1653.

On the panels in the side compartments is a quatrain, broken up into seven lines, the first four being on the dexter side (→) and the last three on the sinister side (←).

I . AM . NOV . DEAD . AND . IN . MY . GRAVE/ LAID . DOVN .
BVT . SHALL/ ARYSE . AND . THEN . RECEAVE . MY/ CROVNE .
ALTHOVGH . THE . EARTH/ MY . BODIE . DOETH . CONTAIN/
YET . STILL . MY . SOVLE . IN . HE/AVEN . IT . SHALL . REMAIN .

No. 38*.—**Katharine Carstairs.** C.S. 6 feet 6 $\frac{3}{4}$ inches by 2 feet 7 $\frac{1}{4}$ inches.

In the upper compartment (all ↓) is a skull with an hour-glass, laid transversely, above it and cross-bones beneath it, the whole being flanked by a spade and a turving-iron set at different angles, and the initials **KC** in relief. In the lower compartment, surmounted by a cherub, is a scrolled cartouche displaying a circular shield, parted per pale and charged: Dexter, quarterly, 1st and 4th a bend, 2nd and 3rd a heart, on a chief, three mullets—for Sandelands; sinister, a chevron between three sun-flowers slipped, in chief a sun—for Carstairs. The whole length of each of the side panels is occupied by a scrolled cartouche, fringed with strap-work, displaying an inscribed panel. On these is the epitaph in six lines, equally divided between the dexter (→) and the sinister (←) sides.

*Hoc recondita monumento in spe beatæ resurrectionis re/quiſcunt
exuvia lectiffimæ matronæ Katharinæ Carſtares quæ/ bis nupta*

*primum M : Iac : Carstares deinde Gul : Sandelands tandem/
suavissima eximie pietatis in deum, observantie in conjuges/
liberalitatis in egenos recordatione posteris relictæ, plena fidei/
in domino excessit Maii 4 an : do : 1649 ætatis fuæ 48*

= "Laid away in this tomb, in the hope of a blessed resurrection, rest the remains of a most excellent woman, Katharine Carstairs, who after having been twice married, first to James Carstairs, Master of Arts, and then to William Sandelands, fell quietly asleep in the Lord, full of faith, on May 4th, A.D. 1649, aged 48, leaving to those who came after her a most fragrant memory of rare love and duty to God, of respect for her husbands, and of generosity to the poor." At the bottom of the central panel are the initials **W S**, above which, in three lines (←), is the text:

BLESSED ARE YE DEAD YT DIE IN YE LORD FROM
HENCEFORTH/ THEY REST FROM THEIR LABOVRS AND
THEIR WORKS DO FOLLOW/ THEM.

The descendants of Katharine Carstairs by her first husband include a remarkable number of men who won distinction in the public life of Scotland.¹

No. 39.—Judith Nairn. C.S. 6 feet 11 inches by 3 feet 2 inches (fig. 6).

From some points of view this stone is the most interesting in the whole series. In the upper compartment, surmounted by the initials **I W** and flanked at the bottom by **I N**, is a shield, parted per pale. The dexter side has scaled off, but the sinister is charged: Quarterly, [1st] and 3rd, a lion rampant; 2nd and 4th, a lion rampant—for Wemyss.² In the lower compartment, above the initials **I N**, is a winged skull with cross-bones, having an hour-glass resting upon it. Each of the side compartments contains an inscribed panel on a scrolled cartouche. That on the dexter side bears the epitaph proper in six lines (→):

ÆXIGVO . HOC . TVMVLO . CLAVDI/TVR . FÆMINA .
LECTISS . IVDITHA/ NAIRN . IOANNIS . VEMII . MERCAT/
SPONSA . DILECTISS . OBIIT . ANNO/ DOM : 1646 . DECMB : 11/
ÆTATIS . SVÆ 80

= "In this narrow tomb lies enclosed a most excellent woman, Judith Nairn, the beloved wife of John Wemys, merchant. She died on

¹ See *Life and Work*, May, 1907.

² Normally one would expect the husband's coat-of-arms to appear on the dexter side, but Lyon King tells me that instances of transposition do occur, perhaps because the die of a seal has served as the model.

December 11th, A.D. 1646, aged 80." That on the sinister side has an elegiac couplet arranged in four lines (→):

*Canā fides probitas themis con/
stantia virtus/
Et pietas gelida hac contumu/
lantur humo*

= "Faith, sanctified by length of days, and uprightness, justice, constancy, virtue and devotion lie buried here together in this cold ground." On the central panel is another elegiac couplet (←):

*[Aete]rna ut rerum primordia
cuncta refurgunt
Sic rursus in terram mortua
cuncta cadunt*

= "Even as all the elements of things rise again, if they are born to life everlasting, so all that have tasted of death fall once more into the ground." To judge from its position and from the direction in which it runs, this second couplet was meant to be read before the epitaph. Cf. No. 34.

Each of the two cartouches has as supporters a figure or figures, accompanied by a scroll on which is inscribed a Biblical text. Taken in the order in which they were intended to be looked at, i.e. from the top dexter end onwards, these texts and groups are as follows, those on the dexter side being → and those on the sinister side ← :

- (1) DRAW ME [AND WE] WILL FOLLOW THEE BY THE SAVOVR OF [THY] O[IN]TMENTS. A male figure advancing r., holding a smoking thuribule or censer over his r. shoulder and grasping with his
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Fig. 6. No. 39.

- l. hand one end of a cord, the other end of which is held by a woman who follows him.
- (2) **EVERYTHING HATH ANE APPOYNTEDE TYME.** A figure of Time advancing l., holding a sickle in his r. hand, while with his l. he steadies an hour-glass on the top of his head.
- (3) **I WILL RISE AND GO ABOUT IN YE CITIE AND SEEKE HIM THAT MY SOVLE LOVETH.** A woman rising r. from a bed, over the canopy of which peeps the head of the Beloved whom she is going to seek.
- (4) **WHEN SHAL I COME AND APPEARE BEFOR GOD PSAL XLII II.** A woman kneeling l. before a curtain, which is about to be drawn aside by a figure of Christ, standing behind it.

The late Mr Alan Reid recognised ¹ three of these groups as copied from the *Emblems* of Francis Quarles. In the first edition of this book, published in 1635, as well as in other early editions, every "emblem" has an illustration by William Marshall. Here the mason has not only reproduced on the stone the text at the head of the "emblem," but has adhered closely to the details of the attached illustration, so far as the coarseness of his material and his own indifferent skill permitted. Mr Reid says that the fourth group "is incomplete as a Quarles subject, but is taken from Emblem 8 of Book V." The text, however, is that which introduces one of the poems in the later volume of *Hieroglyphics*, which appeared in 1638, also illustrated by Marshall. But in this instance the mason evidently felt that the illustration was beyond his powers, representing, as it does, Time standing in front of a sundial, laying his hand on the shoulder of the skeleton form of Death who is about to extinguish a candle. The list, therefore, is—(1) *Emblems* IV. xi., (2) *Hieroglyphics* vi., (3) *Emblems* IV. viii., and *Emblems* V. xii. It should be observed that the sequence is by no means haphazard; it begins with the godly life and proceeds through death to resurrection. The whole bears witness to the widespread popularity of Quarles as a poet, and also to the level of culture in the mercantile community of St Andrews.

No. 40.—Duncan Balfour and Henry Balfour. R.S. 6 feet 2½ inches by 3 feet ½ inch (Fig. 7).

This slab is probably the handsomest of those which depend entirely, or almost entirely, upon the lettering for their decorative effect. Raised capitals are used throughout. In a panel near the top, flanked by the

¹ *Proceedings*, vol. xlv. (1910-11) pp. 545 ff. It is not clear whether Mr Reid had seen Marshall's illustrations.

initials **D B** and the date **16 25**, is a shield charged: On a chevron an otter's head erased; a mullet in base—for Balfour. Near the bottom is another panel, within which is a second shield, flanked by the initials **C I** and charged: A dagger in pale point upwards, surmounted of a saltire; on a chief three cushions—for Johnstone, which was presumably the wife's surname. The epitaph of Duncan Balfour is marginal.

**HIC . IACET . HONORA/
BILIS . VIR . D . B . QVON-
DAM . REGI . GALLIÆ . AB .
EXCV/BI(I)S . CORPORIS .
CIVITATI/S . ANDRÆ . PRÆ-
FECTVS . QVI . OBI(I)T .
ANDREAPOLI . XV FEB**

= "Here lies an honourable man, **D B**, once a member of the King of France's Bodyguard, Provost of the city of St Andrews, who died at St Andrews on Feb. 25th."

Dr Hay Fleming has collected many interesting details regarding this old-time Provost of St Andrews. From 1568 to 1578 his name appears annually in the *Muster Rolls of the Scots Men at Arms and Life Guards in France*; at first among the *archers de la garde* but from 1573 onwards as an *archer du corps*. Nearly twenty years after his return he found it necessary to declare that he "purges himselfe in conscience" from the charge of having participated in "the murther of Pareis"—that is, the Massacre of Saint Bartholomew's Day, which took place on August 24th, 1572. Even his municipal career was not devoid of stirring episodes, which is hardly surprising in view of the stock from



Fig. 7. No. 40.

which he sprang. His father fell at the Battle of Pinkie in 1547, and the elegiac quatrain, arranged in nine lines, which occupies the central part of his own tombstone, is a tribute to the memory of his brother Henry, who was long Colonel of the Scots Companies serving in Holland and who was killed at Wassenaar in 1580, forty-five years earlier than the date upon the stone. Duncan is represented as saying:

VICTIMA · PRO · BAT/AVIS · GERMANVS · M/ORTE · LITAVIT ·
 SÆ/RE¹ · SVA · TAMEN · EST ·/HOSTIA · CÆSA · M/ANV
 IPSE · REDVX · R/AMVM · REFER(E)NS · P/ACALIS · OLIVÆ ·
 AD · TV/MVLVM · STATVI · HVN/C · ARMA · VIRVMQ/VE · MEVM

= "My brother laid down his life as a sacrifice for Holland. Yet many a victim was slain by his hand. I myself have returned, bringing back the olive-branch of peace, and have set up at this tomb my tribute of verse to the hero."²

No. 41.—T B or I H. C.S. 5 feet 10 $\frac{1}{4}$ inches by 3 feet 1 $\frac{1}{2}$ inches.

So little remains visible on this stone that the interest attaching to it is small. It has in the upper compartment a skull in profile (\downarrow), with an hour-glass above it, and two thigh-bones, a spade and a turfing-iron set singly round it. In the lower compartment is a circular cartouche with a shield upon it, now blank. Above the cartouche are the initials T B and beneath it, on either side, traces of I H, all in relief. There is nothing to be seen either on the scrolled cartouches in the side compartments or on the central panel. In the absence of an inscription it is not possible to say whether it is the husband or the wife that is commemorated.

No. 42.—Christian Lentron.

This stone has been only partially preserved, but, when put together, the two portions that survive indicate a breadth of about 5 feet, which would be excessive for a recumbent slab. Probably, therefore, they belong to a mural tablet, broken when the Abbey Wall collapsed. The material is unusual, being close-grained and light grey in colour. The border has been floriated. Towards the top of the enclosed space are two broad circular bands, slightly intersecting. Beneath the intersection is a skull, while above it is a cherub on each side of which an angel

¹ SÆRE is not a Latin word. A locative would make good sense, but enquiries in Holland have satisfied me that there is no Dutch place-name to which the form would correspond. The simplest explanation, therefore, is a stone-cutter's mistake for SÆPE.

² Professor Rose suggests as an alternative rendering "have set up my arms and my man."

serves as "supporter" with one hand and with the other holds up the broad band immediately beneath. Outside of the circular bands are two pelta-shaped ornaments with human heads as terminals. On the dexter band is **DAVID BRÆDIE**, and within it is a shield charged: On a bend sinister coupé three mullets, and, above, a helm with mantling and, as crest, a mullet between two wings erect. The corresponding features on the sinister side are **CHR[ISTIAN LENTRON]**, a shield charged: A stag courant, and, above, a helm with mantling and, as crest, a stag's head and neck. The inscription, which is beneath, is very difficult to read. Indeed, it can only be completed with the aid of the copy published by Monteith.¹

EXVVIÆ CHRISTIANÆ LENTRONÆ CIV[IS A]NDRE[A]/
POLITANÆ HONESTO LOCO NATÆ VXOR[IS DAVIDIS]/
BRÆDEI QVAM SVMMA PIETAS ORNA[VIT PLVRIMA]/
PROBITAS DECORAVIT CASTA PVDICI[TIA ILLVSTRAVIT]/
VALJETVDENARIAM CONSTANS PATIEN[TIA STATVMIN-
AV/IT MORS] DENIQVE CÆLO SACRAVIT HOC M[ARMORE
TEGVNTVR OBIIT ANNO ÆRÆ] CHRISTI 16[47] ÆTATIS
[A]JNN[O 37 DIES 7]

= "Beneath this stone lie the remains of Christian Lentron, a St Andrews citizen of good birth, wife of David Brydie, a woman enriched with the deepest piety, graced with perfect uprightness, conspicuous for modesty undefiled, supported in ill-health by indomitable patience, and finally set apart for Heaven by death. She passed away in the year of Christ, 1647, aged 37 years and 7 days." Then followed the motto, **MEMENTO MORI**, the position of which is uncertain.

No. 43.—Thomas Black. R.S. 6 feet 5¼ inches by 3 feet 5¼ inches.

There has been so much weathering that the inscription, which is all in relief, would be irrecoverable but for Monteith.² Owing to the exposed position in which it has been lying, the surface has deteriorated considerably even since Dr Hay Fleming saw it. The lettering begins by being marginal and is then continued in the enclosed space in the centre.

SVB . HOC . LAPIDE . CO/[N]QV[IESCV]NT . OSSA .
THOMÆ . BLAK . VIRI . [IN]TEGERRIMI ./ ET . OMNIGENA .
VIRTVTVM/ [COHORTE . STIPATI . AMANVENSIS . OFFICIO .
CIVIT//³ATIS . SANCTIANDREÆ . NON . SINE . GLORIA .
DEFVNCTVS . TANDEM . EMENSO . VMBRATICÆ . HVIVS .

¹ Theater (1713), p. 106.

² Theater (1713), p. 127.

³ From this point onwards it is uncertain how the lines were divided.

VITÆ · STADIO ·/ ANIMAM ·] COE[LO · REDONAVIT ·/ 16 DIE ·]
MEN[SIS · NOVEMB · AN · DO]M · [16]30 · [ÆTAT ·] SVÆ · 48

=“Under this stone rest the bones of Thomas Black, a man of the highest integrity, compassed about with an array of all manner of good qualities. He filled the post of Town Clerk of the city of St Andrews with great credit, and after finishing the course of this life, which is as a shadow, he at length restored his soul to Heaven on November 16th, A.D. 1630, aged 48.” In a compartment beneath the epitaph is a shield, flanked by the initials **T B** (above) and **I S** (beneath), with a rosette below on each side. The shield is parted per pale and charged: Dexter, on a saltire couped five lozenges; sinister, three leisters. In a lower compartment still is the legend:


C[E]RTO · VENIVNT · ORDINE · PARCÆ ·/ N[V]L[LI · IVSSO ·
C]ESS[A]RE · LICET ·/ [NVLLI · SCRIPTVM · PROFERRE ·
DIEM ·]

=“The fates move in an order that is pre-ordained. None who has received his summons can avoid appearing, none can defer the appointed day.” Still lower down, but now hardly visible, is the pentameter line, **DVLCE · MIHI · CHRISTO · VIVERE · DVLCE · MORI** (“’Tis joy to me to live for Christ, and joy to die”), beneath which are traces of a skull, with a scroll above and a thigh-bone, laid transversely, beneath, and on each side an hour-glass. The wife's name was Isobel Smith.

No. 44.—Unknown.

Two fragments of a mural tablet. A central panel shows traces of an inscription. The remains of a rather elaborate border include one bird on the sinister side, and traces of another on the dexter.


No. 45.—Unknown.

This has been a recumbent slab, the upper part of which is represented by the two surviving fragments. Of the epitaph, which was marginal, only the beginning is left:  **HEIR · LYETH · AVE · GOD/LY · HON[EST . . .]**. In the upper part of the space enclosed by the inscription is the following, in five lines:

PWT · ON · BE · [M]ARGA/RET · BALFO[VR ·] HIS ·/ LOVEING
[SP]OWS ·/ LAMENTI[N]G ·/ PITIFV[LLY].

No. 46.—Robert Yuil. R.S. 4 feet 10 inches by 3 feet 2 inches.

This stone must originally have been larger, as the upper part is broken away. The epitaph proper, though marginal, is incised.

[ HEIR . LYETH . ANE . GODLY . HON/EST . MAN .]
 ROBERT . ZWIL . SK[I]PER . QWA . DECESSI/T . THE .
 SECVND . DA[Y . OF/ I]WLI . ANO . 1635 . HE . BEING . 35
 YEARIS . OF . [AGE .]


In the upper part of the central compartment is a circle, formed of a rope, inside of which is a shield, flanked by the initials **MB** in relief. The shield is parted per pale and charged: Dexter, a fleur-de-lis, in chief three mullets; sinister, on a chevron, an otter's head erased (?), in base a mullet. Then come two rosettes, one on each side of the central compartment, and beneath these the text:

PRECIOVS . IN THE ./ SIGHT . OF TE . LORD ./ IS . THE .
 DEATH . OF ./ HIS . SAINTS . PSA ./ CXVI . VERS . 15.

In a sunk panel beneath are a compass, an anchor and an hour-glass, as on **No. 10**. The arms of the sinister coat indicate that the wife was a Balfour or a Beaton.

No. 47.—David Dalgleish. R.S. 5 feet by 2 feet 8 inches.

This stone, like **No. 46**, has lost part of the top. All the lettering is in low relief. The first part of the inscription is marginal:

[ HERE . LYETH . ANE/ HJONEST . VPRIGHT . AND .
 GODLIE . MAN/ DAVID . DALGLEISC/HE . CITIZEN . IN .
 SANCT . ANDROE[S].

The epitaph proper is continued at the bottom of the central panel:

DEPAIRED . THE . IIII/ OF . IAN . MDCLII . OF/ HIS . AGE . LVII.

Beneath this is a skull above a thigh-bone, laid transversely. The upper part of the central panel contains the text:

I AM SVR THAT MY/ REDEMER LIVETH/ QVHO SAL
 WAKIN/ THIS MY WORME/ATIN BODY// AND I SAL SE
 GO/D IN THIS SAME/ FLESH.¹

Between the fifth and sixth lines—*i.e.* at the point indicated by the double stroke—is a space containing two shields *accollés*. That on the dexter side is charged: A cross flory voided, between four pheons, three and one, and has above it the initials **DD**. That on the sinister side is charged: A tree eradicated between the initials **IW**. In the fifth, eighth, and last lines of the inscription, as well as in the line that contains the

¹ Dr W. R. Cunningham, who has kindly made a search, tells me that this rendering of Job xix. 25 does not agree with that of any of the published translations. He thinks it is probably a paraphrase of the Geneva Version, which retained its popularity long after 1611 and which has the opening "I am sure." The A.V. is the earliest to have "I know."

deceased's initials, more room is available than the letters require, and the blanks are filled by rectangular panels.

The arms and the initials on the sinister shield suggest that Dalgleische had married a Wood. Dr Hay Fleming's researches make it probable that she was a second wife.

No. 48.—William Skene, Master of Arts. R.S. (Fig. 8).



Fig. 8. No. 48.

This fragment, which measures 2 feet 10 inches by 1 foot 5½ inches, has formed the upper left-hand corner of a handsome stone of unusually early date. It was found in the Priory. There has evidently been a rosette at each of the four corners, while blanks at the ends of lines containing lettering have been filled with decorative *motifs*. Of the marginal inscription but little remains:  . . . at the beginning, and . . . RA · POSUIT · 1582 at the end. At the top of the central compartment there has been a panel with an inscription in four lines, now represented only by LVX · VRBI[S]/ PARS · MAG[NA]/ MAGNA · FOR [TVNA] /CIVIBVS · HIC[.]. Beneath this there has been a second panel, which has probably contained more lettering and a coat-of-arms. All that survives of it is a small portion of the top, showing M, for *Magister*, and decoration. The letters are in relief.

Although the name is wanting, Dr Hay Fleming has proved by a process of exclusion that this must be the tombstone of William Skene, one of three eminent St Andrews men who are recorded to have died in 1582, the others being John Wynram and George Buchanan. Skene was Conservator of the Privileges of the University, Dean of the Faculty of Arts, and Commissary of St Andrews.

No. 49 (3 feet 4¼ inches by 1 foot 6 inches) is a mere fragment, showing only a sunk panel, in which is Death with his "sting." It must have come from a mural monument.

No. 50.—David Welwod. R.S.

No. 50 includes two fragments, measuring respectively 3 feet 7½ inches by 3 feet 2 inches and 2 feet 2½ inches by 2 feet 2 inches. They have belonged to a stone even older than **No. 48**. The main inscription has run round the margin, but is incised. The larger fragment, which represents the bottom and the lower right-hand corner, reads . . . **DAVID** ./ **VALVOD · QVHA · DISC . . .** The smaller shows only the date **1581**.

No. 51.—Margaret Taylor.

This has apparently belonged to a mural monument. When found, it was serving as part of the packing at the base of a modern tombstone, and a considerable portion of it had been broken away. What is left measures 4 feet by 1 foot 10 inches. It shows the upper part of a scrolled cartouche, while beneath is the following inscription, incomplete at the ends of the lines:

*Sub hoc tumulo placide conquiescunt of[sa Marga]/retæ tailzeor
spon[sæ] Iacobi Robersonæ ju[nioris]/mercatoris civis civitatis
S[anctia]ndre[æ] quæ obiit]/tertio die mensis m[aii] 1636 ætatis suæ . . .]*¹

=“Beneath this heap of earth rest peacefully the bones of Margaret Taylor, wife of James Robertson, Junior, merchant, citizen of St Andrews, who died on May 3rd, 1636, aged ?.”

No. 52.—Grace Welwod. R.S. 5 feet 11 inches by 2 feet 4½ inches.

This stone is quite plain except for the inscription, which is in raised letters, the lines separated by raised lines, and reads as follows:—

**[ANNO · 160]2 · DECEMB · 17 ./ ÆTATIS · VERO · 26 ./
GRÆCINA · VELVOD · VIRGO ./ FILIA · THOMÆ · POSTQV/AM ·
TESTATO · VNI · CHR/IST[O ·] DESPONSATA ./ ARDENTIQVE ·
SPON/SVM · VIDENDI · DESID/ERIO · CAPTA · FVISSET ./
POSITO · HIC · TEMPORE · MO/RTIS · FÆLICITER · VALDE ./
LAVS · DEO · E[MIGR]AVIT**

=“On December 17th, in the year 1602, the 26th of her age, Grace Welwod, unmarried daughter of Thomas Welwod, after she had been publicly betrothed to Christ alone and had been seized with an ardent longing to behold the bridegroom, her time being appointed here to die, passed to the other world very happily, God be praised.” The phrase **POSITO HIC TEMPORE MORTIS** is odd, and its meaning is not free from doubt. Professor Rose suggests that the mason may have cut **POSITO**

¹ Dr Hay Fleming has established the year of death from other sources.


instead of **POSITA**. In that event the sense would be "laid here at the time of her death."

The upper left-hand corner of the stone is broken away, but there can be little or no doubt as to the missing part of the inscription. Without knowing that 2 was visible upon the stone, Mr Henry M. Paton, arguing from the terms of her father's will, calculated for me that Grace Welwod must have been 26 within a year or two on either side of 1600.

No. 53.—Walter Good. R.S. 6 feet 9½ inches by 3 feet 10 inches.

There is a rosette at each corner. In a blank space at the bottom of the central panel are two shields, on each of which only a chevron remains visible, and beneath the shields are a book and an hour-glass, flanking a skull. Above the skull is a scroll which seems to have borne a motto, while under it is a thigh-bone laid horizontally.


Otherwise the whole surface is covered with the large raised lettering of the inscription. The epitaph proper runs first round an outer border (4 lines), then round an inner one (4 lines) and finally ends on the central panel (6½ lines).

 HVIC · CIPPO · INCL/VDITVR · WALTERVS · GOOD ·
OPTIMÆ ./ SPEI · PVER · QVI · MOR/VM · SVAVITATE ·
ET · INGENII · SVPRA · Æ//TATEM · OMNES · SV/I · ORDINIS ·
COMMILITONES · LONGE · AN/TECELVIT · ET · EX · H/AC ·
MISERIARVM · VALLE · AD · SEMPI//TERNAM · FELICIT/
ATEM · COMMIGRA/VIT · CVM · NONDVM/TRIA · AN(N)ORVM ·
LVSTRA · EXPLEVISSET/ ANNO · PARTÆ · SAL/VTIS · [1]637

= "Within this tomb lies Walter Good, a lad of the highest promise, who by a sweetness of character and disposition beyond his years far excelled all his companions of his own degree, and who passed from this vale of tears to everlasting bliss in the year of our Salvation 1637, before he had completed his fifteenth year." Immediately after the date **WALT/ERVS · GOOD ·** is repeated, and is followed first by the pentameter line **CONV/ENIVNT · REBVS · N/OMINA · SÆPE · SVIS/** ("Many names are apposite for that which they denote") and then by the maxim **NON · POTEST · MALE/ MORI · QVI · BENE · VIXIT** ("He who has lived a good life cannot die an evil death").

No. 54.—Andrew Watson. R.S. 5 feet 7¼ inches by 2 feet 7½ inches.

The lettering is again in relief, but is smaller than on **No. 53**. The epitaph is marginal.

 HIR · LYIS · AND/ROW · WATSON · ZOVNAR ¹ ·
 DEPERTIT · THIS · / LYF · THE · 12 · OF · / DESEMBER ·
 ANNO · 1636 · OF · HIS · AG · 72.

Within, at the top, are four lines:

THIR · IS · NO · INE/IQWALITE · WITH · / OVR · GOD · NOR ·
 EXCE/PTION · OF · PERSON,

words which seem to be a paraphrase, or at least an echo, of *Acts* x. 34. Lower down, flanked by the initials **A W**, above and below each of which is a rose, is a shield charged: An oak-tree eradicated, surmounted of a fess couped. Beneath the shield is a slightly raised oblong panel, and beneath the panel are cross-bones between an hour-glass and a skull, the latter of which has a thigh-bone laid transversely beneath it.

Contemporary local records mention two Andrew Watsons, who are systematically distinguished as "elder" and "younger" respectively. There is no ground for believing that they were father and son, but they may well have been relatives, possibly cousins. Dr Hay Fleming, who regarded this as the tombstone of Andrew Watson, elder, explained the enigmatic word as "crounar," quoting the definition of "crounar" in Jamieson's *Dictionary* as "an officer to whom it belonged to attach all persons against whom there was any accusation in matters pertaining to the Crown." Apart from the fact that it conflicts with the evidence of the stone, the explanation is unsatisfactory. Originally the office of "crounar" was one of great importance. By the seventeenth century the duties had become more or less nominal. But the post was still coveted, doubtless because there were certain fees attached to it. Thus, Mr William Angus points out to me that on 11th May, 1648, Parliament ratified a charter under the Great Seal granting to John, Earl of Crawford and Lindsay, *inter alia*, the "heretable office of Crounarschip of all justice aires within the said regalitie [of St Andrews]." Is it at all likely that, twelve years before,² the crounar had been a simple citizen of the burgh? And, if he were, would he not have been so designated in the local records, instead of being called, as he regularly is, "Andrew Watson, elder"?

I suggest as an alternative that the stone-cutter has accidentally omitted a **G** after the **N**, and that the real reading is **ZOVNGAR**, which is the old Scottish spelling of "younger." The stone will then be that of "Andrew Watson, younger." One may compare the use of "elder" on **No. 28**. There is, however, a difficulty. From the *Commissariat*

¹ For the significance of this word, see *infra*. The reading [**CR**]OVNAR, which appears in the *Catalogue* is impossible; there is no room for more than a single letter, and **Z** is quite legible.

² In point of fact, the charter had been confirmed by Charles I as early as 13th November 1641.


Records it is clear that "Andrew Watson, younger" died on the 12th of January 1636, not on the 12th of December, as the inscription states.¹ The obvious way out is to suppose that there has been some confusion between "January" and "December."

No. 55.—Unknown.

This is a fragment, apparently from the top of a mural monument. It shows a cherub, with a large rosette beneath each wing.

No. 56.—Elizabeth Dickson. R.S. 6 feet $2\frac{3}{4}$ inches by 2 feet $11\frac{1}{2}$ inches.

The weather has played sad havoc with this stone, particularly with the lettering, all of which is in relief. The upper part has suffered most. The epitaph runs round the margin, but the last three words of it have been crowded out and fill half a line at the end of the second of the two texts in the central compartment. Part of it is quite illegible. The whole, however, must have read somewhat as follows:—

[] HIR · LYIS · ANE · GODLY · HONEST · WOMAN ·
ZOVNG ·] IN · ZEIRES · NOT · ZOVNG · IN · GRACE ·
EL/IZBETH · DICKS[ON · SPOVS · / TO · J]AMES · FORRE[T ·
MA]RINER · QVHA · DEPART[IT · 16]25 · [AND · OF ·]/ //HIR ·
A[GE · 24].

The central compartment is divided into four panels. The uppermost has contained an inscription, now indecipherable except for the last two lines: [... IS SV]ALOVED · [VP · IN · / V]ICTORE · I · COR · 1[5 · 24]. The second panel is occupied by two shields *accollés*. The dexter, above which are the husband's initials I F between two roses, is charged: Quarterly, 1st, an animal's head erased; 2nd, four pheons, two and two, points meeting in fess; 3rd, a chevron, in base a crescent; 4th, two pheons, points meeting in fess. The sinister shield, which has above it the wife's initials E [D] is charged: A lion salient guardant, on a chief three mullets. There are three roses in the line which contains the initials, one in the centre and one at each end, and a fourth rose beneath, between the points of the shields, with a mullet on each side. On the third panel, arranged in six lines, is:

BE · ZE · ALSO · PRE/PARAD · THERFOR/ [FOR] THE · SONE ·
O[F · M]AN · / [VIL · CO]ME · AT · AN [· HOVRE]/ [ZE ·
TH]INK · NOT [LVKE 12]/ VER · 48.


It is interesting to note that the text follows the Geneva Bible, not the

¹ The reading "18" in the *Catalogue* is a simple misprint. It is not known when the "elder" died, but he certainly outlived his namesake.

A.V.¹ In the middle of the lowest compartment is a skull, beneath which is a thigh-bone laid horizontally, while above it is a scroll, which has once been inscribed. On the dexter side of the skull there has been a compass and on the sinister side an hour-glass, as on **Nos. 10 and 46.**

No. 57.—Thomas Robertson. R.S. 7 feet 1 $\frac{1}{4}$ inch by 3 feet 5 $\frac{1}{2}$ inches.

This stone, which is larger than most, has suffered severely from weathering. The letters have all been in relief and not a few of them have disappeared entirely. The damage has been done since they were copied by Monteith,² whose version makes it possible to restore the whole. The inscription is at first marginal, but after the end of the fourth line it is continued on the central compartment in eight lines, the divisions between which, though tentatively indicated below, are not always quite certain. It runs as follows:

 SVB . HOC . CIPPO/ [PLAC]IDE . OBDO[R]MIVNT . OSSA .
 THOMÆ . ROBE[RT]SONI ./ [CIVIS . ANDREANI ./ VSQVE]
 QVAQVE . SPECTATIS(S)IMI . ET . SYNDICI . LONGE . PE-
 RITIS[SIMI]// QVI . MORTALITATE . [EXE]/MP[TV]S . [E]T .
 SVPE[RORVM . OR/DINI]BVS . A[SC]RI[PT]VS [. MAG/NVM .]
 SVI . DESIDERI[VM . APVD]/ OMNES . B[ONO]S . REL[IQVIT .]/
 ANNO . D[OM . 16]3[1 . ME]NS[IS .]/ AVGVSTI . 10 . DIE . SVÆ/
 [AVTEM .] ÆTATIS . 56

= "Under this stone sleep peacefully the bones of Thomas Robertson, a citizen of St Andrews, held in the highest respect everywhere and by far the ablest of the magistrates, who on the 10th of August, 1631, the 56th year of his age, put on immortality and was enrolled in the ranks of those above, leaving great regret for his loss in the hearts of all good men." Beneath are two shields, one above another. The upper one, which is flanked by the initials **TR**, is charged: A chevron couped, with an animal's head erased in base and a mullet above. The lower one, flanked by the initials **IR** (Janet Reikie), is charged: A dexter hand *appaumée*. Lower down still are nine lines of lettering:

MORIENDVM . CERTE . [E]ST/ ET . ID . INCERTVM . AN .
 EO ./ IPSO . D[I]E . CIC . ÆQVISSIMO ./ ANIMO . MORITVR .
 S[APIE]N/TISSIMVS . QVISQV[E . ST/V]LTISSIMVS . IN-
 IQVISSIMO ./ VITÆ . SVMMA . BREVIS . S/PEM . NOS .
 VETAT . INCHOAR[E ./ LONGAM . H]ORA[T].

¹ Cf. No. 47. On the dexter side of the third panel the beginnings of the lines of the text have been "stepped," apparently to admit of the insertion of some device that is now indecipherable.

² *Theater* (1713), p. 128.

As the **CIC** between them indicates, the first and second of these quotations both come from Cicero, the former ("That we must die is certain and the one thing that is uncertain is whether we shall die to-day") is *De Senectute*, xx, 74, and the latter ("All the wise die with perfect peace of mind, but all the foolish with the heaviest of hearts"), *De Senectute*, xxiii. 82. The third ("The brief span of life forbids us to build up distant hopes") is a familiar tag from Horace (*Odes*, I, 4, 15).

No. 58.—Simon Greig. R.S. 6 feet 5 inches by 3 feet 10 inches.

There is a floriated border formed of volutes, and at each corner there is a rosette. The epitaph runs:

SVB HOC MARMORE REQUIES/CVNT AC TEGVNTVR
EXV[V]IÆ/ [CL]ARISSIMI VIRI SIMONIS GREIG/ [CI]VITATIS
SANCTIANDREÆ/ [ÆD]ILIS VIGILANTISSIMI QVI IN/ [EO]
MVNERE FVNGENDO CESSIT/ ANNO 1637/ MONVMENTVM
HOC POSV/IT MAGISTER SIMON GREIG/ SCRIBA EIVS
NEPOS/ ANNO 1676

= "Beneath this marble monument rest in safe keeping the remains of a very notable man, Simon Greig, a most vigilant Dean of Guild of the city of St Andrews, who died in the year 1637, while holding that office. This monument was erected in the year 1676 by his grandson, Simon Greig, Master of Arts, writer." Beneath is the letter **M** and beneath that again, widely spaced, are the initials **S G**, on the sinister side of which, deeply incised, are the letters **B · B**. Underneath the initials are **PVLVIS/ ET UMBRA/ SVMVS** ("We are but dust and a shadow") and **MEMENTO MORI**, four lines in all. At the bottom is a skull with cross-bones, flanked on the dexter side by an hour-glass and on the sinister side by a spade and a turfing-iron in saltire, the two latter devices being deeply incised.

The appearance of **M** (for *Magister*) proves that the initials are those of the grandson. The letters **B B**, which are probably the initials of his wife, seem to have been added as an afterthought along with the flanking devices at the bottom. The lady seemingly wished her own name to be associated with the memorial.

No. 59.—David Goodlad. R.S. 6 feet 4½ inches by 3 feet 1½ inches.

Many of the letters, all of which are in relief, are indecipherable through weathering. As the inscription is not among those recorded by Monteith, it can no longer be restored in its entirety. But it was

marginal, and was continued and completed in eleven lines on the central compartment.

☛ HOC . TVMVLO . REQ/[VI]E[SCIT .] VIR . SPEC-
TATISSIMVS . DAVID . GOODELAD . OR/DINIS . IN .
HAC . CIVI[TATE .]/ SENATOR . VITAE . INTEGRITAE .
MORVM . [SVAVITAE/ / . .
. VS . QVI . E/ /
. / . M[AGNV]M . [SVI . DESIDERI]VM ./
APVD . OME[S . B]ONOS . /RELI[QV]IT . ANNO . INCAR-/
NATIONIS . DOMI . 1636 . / 10 . DIE . MENSIS . MARCII ./
ÆTATIS . SVÆ . 55

=“In this grave rests a man who was held in the highest respect, David Goodlad, a member of the Town Council of this city, [distinguish]ed for the uprightness of his life, the [sweetness] of his character, who [died] on the 10th of March in the year of the incarnation of our Lord 1636, the 55th of his age, deeply regretted by all good men.”

Beneath the inscription are two shields, a larger above a smaller. The former is flanked by the initials **D G**, above each of which is a rosette, and is charged: A falcon's head couped, within a bordure charged with cross-crosslets. The latter is flanked by the initials **G A** and charged: A chevron, with a crescent in base—for Alexander. Above each of the lower initials is a small rosette surmounted by a mullet and having a larger rosette on its inner side. Underneath the lower shield are four lines of much worn lettering, the first of them being interrupted to leave room for the top of the lower shield. The whole reads:

NOSTRVM . VIDERE . VTE/TVSTA . TRANSIRE . HOC . EST ./
MOMENTVM . TEMPORIS . VND/E . PENDET . ÆTERNITAS

=“It is ours to see old things pass away. This is a moment of time, on which depends eternity.”¹ Below are a spade, a turving-iron and a mattock, arranged cross-ways, while on each side of these is a skull above a thigh-bone, laid transversely, with an hour-glass at the dexter end of the line of symbols and cross-bones at the sinister end.

The second set of initials are those of Giles (or Jealls) Alexander, the widow. Their daughter Isabel became the second wife of James Forret (see No. 56).

No. 60.—Unknown. 1 foot 3 inches by $8\frac{3}{4}$ inches by $9\frac{1}{2}$ inches.

This fragment apparently belongs to a mural monument. It has been shaped for building purposes, and was found in the blocked door

¹ The Biblical phraseology suggests that the words are a quotation from one of the Early Fathers, but I have failed to identify it.

of the Haunted Tower.¹ The remnants of the inscription (O · MORIV/ APOCAL) obviously represent: "[*Beati qui in domin[o] moriu[n]tur*]. Apocal. [14, 13]."

No. 61.—Unknown. 2 feet 1 inch by 1 foot 9 inches.

This is another fragment. It is the upper part of what has been an oval slab. At the top is a human head, facing, with a scroll issuing from the mouth to right and to left. Beneath are a skull and cross-bones, and a bell. Lower down still are the remains of a spade and a turving-iron in saltire.

No. 62.—Helen Law. R.S. (Fig. 9).

This slab, now only 4 feet 7 inches high, as compared with 3 feet 5 inches broad, has obviously lost its upper portion, on which was almost the whole of the first line of the inscription. A rebate at the top, 2 feet 7½ inches long, and fully 1 inch deep, suggests that the two pieces may always have been separate. The epitaph has been marginal,² although it is doubtful how this part has been arranged:

[HERE · LYES · ANE · HONEST · WOMAN HELE]N/ LAW ·
SOMTYM · SPOVS · TO · IOHN · HARDY · AND/ THEY ·
FEARED · GOD · AND · SHE ·/ DECEISSED · THE · 6 (?)
DAY · OF · DECEMBER · 163[9].

The two words at the lower dexter corner are divided by a volute.

The general design is quaint, almost bizarre. Above, in the centre, is a woman's head facing, presumably a portrait of the deceased. Her hair rises in waves from her forehead, and in front, directly above the middle of the brow, is a circular ornament, possibly a pin. Beneath the head a large shield, fringed with scrolls, is parted per pale and charged: Dexter, a right arm and hand, grasping a dagger, point downwards; sinister, a bend sinister between a mullet in the dexter canton and a cock in base. On the dexter side of the slab is Death, thrusting his "sting" downwards into the body of the lady, which, though unconnected with the head, is supposed to be concealed behind the shield, as is clear from the position of the hands by which the latter is supported. Starting from Death's right shoulder, a scroll, inscribed **MEMENTO · MORI · MORI · HEIR · THAT · YE · MAY · REIOYCE**, curves over his head and then over the head of the lady, to terminate under an

¹ See *supra*, p. 46.

² The letters, however, are incised.

hour-glass, which is suspended by a strap, fastened with three nails. Beneath the shield is a skull and cross-bones, flanked by a spade and a turving-iron, in saltire, and an anchor. The lower part of the shield is flanked by **I H**, and the skull by **H L**, both sets of initials being very large and incised in double lines.



Fig. 9, No. 62.

No. 63.—Sir George Douglas. 1 foot 8 inches by $8\frac{1}{2}$ inches by $6\frac{1}{2}$ inches.

This fragment has been identified by Dr Hay Fleming as part of a mural monument to Sir George Douglas, best known through his association with Queen Mary's escape from Lochleven.¹ All that remains is the base of a shield, with three piles and a crescent, and the initial **G** on the dexter side.

¹ In *The Abbot* Sir Walter Scott makes Douglas die at the battle of Langside in 1568. But Dr Hay Fleming points out that he seems to have been alive in 1603, though dead before 1609.

No. 64.—Katharine Carstairs. 1 foot 7 inches by 1 foot 3 inches by 7 inches.

This fragment seems to be part of a mural monument. It shows a shield parted per pale. On the dexter side it has evidently been charged: A tree eradicated—for Wood; and on the sinister side: A chevron between three sun-flowers slipped—for Carstairs. The monument was, therefore, erected to a Carstairs who had married a Wood, and Dr Hay Fleming is doubtless right in recognising it as the tombstone of Katharine Carstairs, daughter of the Katharine Carstairs commemorated on **No. 38**,¹ and wife of James Wood, Principal of St Salvator's. The epitaph has been preserved by Monteith.² It may be of interest to reproduce it here, as it is probably from the same hand as those on **Nos. 20** and **24** (*q.v.*). It ran:

HIC . BEATÆ . RESVRRECTIONIS . SPEI . PLENÆ .
 REQVIESCVNT . REDEMPTORIS . PRÆSTOLANTES .
 ADVENTVM . EXVVIÆ . LECTISSIMÆ . FŒMINÆ .
 CATHARINÆ³ . CARSTAIRS . IACOBI . SYLVII . QVONDAM .
 CONIVGIS . CHARISSIMÆ . QVÆ . VITAM . TERRENAM .
 A . PRIMA . ÆTATE . MODESTIA . SOBRIETATE .
 INDVSTRIA . PIETATE . ALIISQVE . VIRTVTIBVS .
 CHRISTIANIS . CITRA . FVCVM . ORNATISSIMAM . TANDEM .
 MORBI . PERTINACIS . TORMINIBVS . CONFECTA .
 INSIGNEMQVE . DE . HOSTE . SALVTIS . HVMANÆ . IN .
 GRAVISSIMO . CERTAMINE . VICTORIAM . DOMINI .
 VIRTUTE . INGENTI . SOLATIO . SPECTANTIVM . ADEPTA .
 CVM . CŒLESTI . COMMVTAVIT . 9 . SEPTEMBRIS .
 ANNO . 1658 . ÆTATIS . SVÆ . 38 . 18 . CONIVGII . IN .
 QVO . XI . LIBEROS . 5 . FILIOS . 6 . FILIAS . ENIXA .
 TER . INSVPER . ABORTVM . PASSA⁴ . PIE . ET .
 RELIGIOSE . OBIIT . ANAGRAMMATE . VERO . CASTA .
 RARA . CHRISTIANA

= "Here, filled with the hope of a blessed resurrection, there rest, waiting the coming of the Redeemer, the remains of a most exceptional woman, Katharine Carstairs, once the dearly beloved wife of James Wood. Her earthly life from its earliest years was distinguished by modesty, seriousness of mind, industry, godliness and other Christian virtues, and was devoid of all guile. At length, worn out by the tortures of an un-

¹ *Catalogue*, p. 173.

² *Theater* (1713), p. 124.

³ The initial **C** is used, instead of **K**, in order to suit the anagram with which the epitaph ends.

⁴ Monteith has **PASSU**, which is not possible.

yielding malady and after she had won, through the grace of her Lord and to the immense comfort of the onlookers, a glorious victory over the Enemy of Human Salvation in a struggle that tried her very sorely, she exchanged it for a heavenly life, dying the death of the righteous on September 9th in the year 1658, the 38th of her age, and the 18th of a union in the course of which she had borne eleven children, five sons and six daughters, besides suffering three miscarriages. The anagram of her name truly proclaims her a chaste, rare Christian."

No. 65.—Unknown. 1 foot by 1 foot 2 inches by $8\frac{1}{2}$ inches.

This fragment shows only a skull in relief. As the *Catalogue* suggests, it may be part of the same monument as **No. 63** or **No. 64**.

No. 66.—Unknown. 2 feet 2 inches by $8\frac{1}{2}$ inches by $5\frac{1}{2}$ inches.

Another fragment which seems to have come from a mural monument. It shows a part of a figure of Justice. **Nos. 61** and **63-66** were all found together in 1909.¹ For the most probable explanation, see *supra*, p. 46.

B. ON THE WALLS OF SAINT RULE'S CHURCH.

No. 67.—C S (Fig. 10).

There has been at least one burial at the foot of the wall of the Tower a little to the west of the now blocked-up doorway on the south, where the twelfth-century ashlar masonry has been turned to account for memorial purposes. A large block (2 feet $8\frac{1}{2}$ inches by 1 foot 8 inches) has had sunk into its face a rectangular panel, enclosed by a plain beading, within which is inscribed on a raised border: HEIR · LYIS · ANE · HONE/ST · VOMA/N SPOVS · T/O · G · PVAS.² Within the border is a shield, parted per pale but otherwise illegible, flanked above by **GP** and below by **CS**. On a smaller block beneath there has been carved an arched recess, roughly centred with the shield and containing a skull above a thigh-bone, laid horizontally. Two of the three blocks immediately above the panel have also been inscribed, but it is impossible to say whether they have formed part of the same monument.

¹ According to the *Catalogue* (p. 169), they were "recovered . . . from the wall which connects the buttress at the north-east corner of the Cathedral with the north-west roundel of the Abbey Wall." If this is to be understood literally, the part from which they were taken must have been a repair. Gordon of Rothiemay's sketch (see *supra*, p. 44) shows that the wall was in existence as early as 1642, while the presence on it of the Hepburn arms points to a much earlier date.

² **PVAS** is a very odd name. Mr Alan Reid's suggestion of **PV(RV)AS** is not improbable.

Nothing can now be made out with certainty except a few detached letters—EN, S, P, and others.



Fig. 10, No. 67.

No. 68.—Unknown. 2 feet 2 inches by 1 foot 4 inches.

Another block to the east of the doorway has been similarly utilised in connection with another burial. It shows a skull, flanked by an hour-glass and cross-bones, with traces of lettering beneath.

No. 69.—William Preston, Master of Arts.

On the north wall of the interior of the Church, showing unmistakable signs of fracture and built in so clumsily as to make it more than doubtful whether it is in its original position, is the monument (9 feet 1½ inches by 4 feet 10 inches) of William Preston, of whom little or nothing is known except what his epitaph has to tell. The records of St Leonard's College show that he matriculated there in 1647.

The central part, which includes an inscribed panel displayed on a scrolled cartouche, rests on a pedestal and is surmounted by a strap-worked pediment, containing an armorial achievement and having a cherub's head over all. The inscription runs:

HIC CONDITVS EST GENEROSVS/ PRÆSTANS ET PER-
DOCT IVVEN/IS MR GVLIELM PRÆSTON FILIVS/ CLARISSIMI
VIRI DÑI IOANNIS PRÆ/STON EQVITIS AC BARONIS
DE/ ARDRY QVI PHILOSOPHIAM IN/ GVMNASIO LEONARDINO
PER TRIENNIVM PROFES/SVS INGENIO INDVSTRIA MORI/BV-
SQVE PROBATIS OMNIVM/ SVFFRAGIA MERVIT HINC/ PRÆM-
ATVRA MORTE ABREPT/INTACTA FAMA OBIIT 6 CAL :/ APR :
ANNO DÑI 1657 ÆT 26

= "Here lies buried a well-born, estimable and very learned youth, William Preston, Master of Arts, son of a highly distinguished man, Sir John Preston, Knight and Baron of Ardry, who was a regent in philosophy¹ for a full term of three years in St Leonard's College and won universal regard by his proved ability, application and character. Snatched from this world by a too early death, he died with unblemished reputation on March 27th, A.D. 1657, the 26th year of his age."

The charge on the shield in the achievement is: Three unicorns' heads —for Preston. The two pilasters flanking the central part of the monument are studded with nails, as if based on a wooden model. In the pedestal is carved a skeleton, suspended from two rings in a swag of drapery, beneath which are incised the words **DIGNVM LAVDE VIRVM MVSA VETAT MORI** = "A man who deserves praise, the Muse does not allow to die." Beneath that, again, is **VIVE MEMOR LETHI FVGIT HORA** = "In life remember death. Time is flying." On the pedestal returns, beneath the pilasters, are: dexter, two coffins in saltire, and sinister, an hour-glass.

No. 70.—Anna Halyburton. Also John Comrie, Master of Arts.

A little to the east of **No. 69**, built into the wall in even clumsier fashion, is a graceful monument, measuring 10 feet 6 inches by 5 feet 1 inch. As the illustration (Fig. 11) shows, it has at some time or other been broken into several pieces. This, more particularly when combined with the fact that the portion of the pediment containing the shields is proved by the colour of the stone to be a replacement, suggests that **No. 70**, as well in all likelihood as **No. 69**, was originally built into the Abbey Wall, and that both had been broken in the collapse.²

A typical Renaissance framework of base-mould, Ionic side-shafts and cornice, surmounted by a triangular pediment, encloses an inscribed panel with a shouldered semicircular head, flanked by small pyramidal

¹ This term is wider than the word might seem to imply. It was used to cover the whole of the Arts curriculum of the day.

² See *supra*, p. 46.

finials. The side-shafts are much weather-worn, but the upper part of each breaks out into a caryatid, bearing one of the two emblems of



Fig. 11, No. 70.

Justice. Two ball-topped finials with scrolled bases rest on the cornice and carry up the line of the pillars, while the pediment is surmounted by a third. On each finial is a letter, the three, beginning with the topmost, forming the initials *M*(aster), *W*(alter) *C*(omrie). In the

pediment are two shields *accollés*, the dexter one surmounted by **M** and flanked by **W C**, the sinister one flanked by **A(nna)** [**H**(alyburton)], all so arranged that **C** and **A** come together within a small incised circle. The shields are charged, respectively, (a): A bend between a crescent, accompanied by two mullets, in chief, and the same in base; and (b): Quarterly, 1st and 4th, on a bend three mascles,¹ 2nd, three bars, 3rd, a bend, the whole showing descent from Halyburton and Vaux.

At the springing-line of the head of the panel is a monogram, composed of the letters **M W C** and **A H**, **C** and **H** being given most prominence. The space immediately below was originally blank, and then followed the inscription:

HIC . REPOSIT(A)E . SVNT . IN . SPE[M .] /BEATÆ .
RESVRECTIONIS . EXVVIÆ/ SELECTISSIMÆ . FŒMINÆ .
ANNÆ/ HALIBVRTO[N]Æ . VXORIS . M . GVALTERI ./
COMRII . PASTORIS . LEONARDINI . / OBIIT . ANNO .
1653 . ÆTATIS . 22

= "Here rest in hope of a blessed resurrection the remains of one of the best of women, Anna Halyburton, wife of Walter Comrie, Master of Arts, Minister of St Leonard's. She died in the year 1653, the 22nd of her age." Beneath the epitaph is an elegiac couplet, arranged in three lines:

CASTA . PIA . ET . PRVDENS . HVMILIS/ FORMOSA . SERENA .
CONIVGE/ NVNC . CHRISTO . FRVITVR . ANNA . SVO

= "Pure in heart, devout and prudent, meek, fair to look upon and tranquil-minded, Anna has now entered into the joy of Christ, her true spouse." ² Immediately below the last words is a skull and cross-bones, surmounted by an hour-glass, on the dexter side of which, in two lines, is **VBI TVA O MORS/ VICTORIA** ("O death, where is thy victory?"), and on the sinister side, also in two lines, **VBI TVVS O SEPVLCVRVM ACVLEVS** ("O grave, where is thy sting?").³ Round the top of the panel, beginning above the first letter of the epitaph, and following the edge closely, is the text:

RAPIEMVR IN/ OCCVR/SVM DOMINI IN ÆRA ET ITA SEMPER
CVM/ DOMINO/ ERIMVS

¹ The mascles are much worn.

² It can hardly be a mere coincidence that this couplet reappears, with the substitution of **ILLA** for **ANNA**, on a Shetland tombstone, described by me in *Proceedings*, vol. lxxvii. (1932-33) p. 60. I believe that the epitaph on the latter must have been composed by William Neven of Windhouse, who saw the Halyburton monument when he was a student at St Andrews (*Proceedings*, vol. lxxix. (1934-35) p. 42).

³ The confusion between **MORS** and **SEPVLCVRVM** is an obvious stone-cutter's mistake. Oddly enough, the same transposition is recorded by Monteith from the tombstone of Sir James Oswald in Greyfriars Churchyard, Edinburgh (*Theater* (1704), p. 19).

= "We shall be caught up to meet the Lord in the air, and so shall we ever be with the Lord."

Such was the monument as first set up. It was possibly the husband's intention to be buried beside his wife. Subsequently, however, he married again, and the blank space that had perhaps been reserved for his own name was utilised to commemorate his son by Anna Halyburton. The lettering of the later inscription is carelessly cut:

*Hic juxta matrem Annam/ Sepultus Est M Johannes Comrius/
P P D Walteri Comrii Filius/ Vnicus et Vna Quicquid/ Amabile vel
Parens Optet Vel/ Orbis Lugeat Eheu Delicias/ Breves quod Mortale
Est non/ Delectat Diu ne Delectet Nimis*

= "Here beside his mother Anna lies buried John Comrie, Master of Arts, teacher of philosophy, only son of Dr Walter Comrie, and with him every amiable quality that a parent could wish for or could weep over in the day of bereavement. Alas for short-lived delights! What is mortal is not allowed to delight us long, lest it delight us overmuch." This is practically all we know of John Comrie, except that he matriculated at St Leonard's in 1665. He obviously died young, but the date is not given. The *P(hilosophiam) P(rofessus)* of the epitaph is probably the authority for Scott's statement that he was "Professor of Philosophy."¹ In the interval that elapsed between the two epitaphs, the father had become Principal of St Mary's (1666) and had been given a doctorate.

C. IN THE CHURCHYARD.

No. 71.—Agnes Mearnes. R.S. 6 feet 6½ inches by 3 feet 3¼ inches.

Within the shadow of the east gable of the Cathedral Church is a recumbent slab, similar in type to many of those now in the Museum but, unlike them, still in the position in which it was originally laid. The main inscription is marginal:

HEIR . LYETH . ANE . HON/EST . WOMAN . CALEIT .
AGNES . MEARNES . SPOVS . TO/ WILLEM . GEDDES .
IN . SANCT/ANDROS . DEPERTIT . THE . 25 . OF . MAY
1633 . HER . AG . 38.

In the upper part of the enclosed space is:

BLISSED . AR . THEY/ THAT . DIE . IN . THE ./ LORD .
FOR . THEY . REST ./ FROM . THEIR LABOVRS ./ AND .
THEIR . WORKES ./ FOLLOW . THEM.

¹ *Fasti*, vol. vii. p. 420. The expression need not mean more than that he was qualified to give instruction in the various branches of the Arts curriculum. The further statement made in the *Fasti* as to his will is incorrect. It was the will of his stepmother that was registered in 1675.

Beneath is a shield, flanked by the raised initials **W G** and charged: Within a bordure three "geds" or pike naiant—for Geddes. Lower down still is a second shield, flanked by the initials **A M**, also raised, and charged: A stag couchant. Beneath each initial, at the level of the tips of the shields, is a large rose. At the bottom is an hour-glass, flanked by two skulls, each of which has a thigh-bone laid transversely beneath it.

No. 72.—Thomas Duncan. R.S. 6 feet by 2 feet 7 inches.

Not far from **No. 71** is another seventeenth-century slab, doubtless once recumbent, although now a table-stone, the legs being evidently an eighteenth-century addition, made when the lettering was "renewed" by order of a later John Duncan. The epitaph is marginal within a scalloped border:

HIER . LAYIS . INTERE/D . IN . THIS . GRAWE . ANE .
 PIOUS . WERTEVS . HONEST . / MAN . THOMAS .
 DVNC/CONE . IN . KINGASK . WHOS . LYF . VAS . BETER .
 THEN . HIS . DAYS . VAS . / LONG.

Owing to lack of room, the last word is inserted beneath the one that precedes it. Within the enclosed space are the initials **TD** and **AT** in relief, with a mascle between them. These surmount two shields, *accollés*, the dexter charged: A chevron between two roses in chief and a hunting-horn in base, and the sinister: A stag's head affronté, with a mullet in chief. Below the shields is **AND . OF . HIS . AGE . 59**, with **1668** beneath it. Beneath the date, again, is a rectangular panel, with the quatrain:

HIS . SOVL . IS . / NOT . HIER . BVT . / RESTS . ABOVE/
 REPLENIST . WITH . / ETERNAL . LOWE/
 HIS . BODY . FRAL . / DOTH . STIL . REST . / HIER
 TILL . CHRIST . / OWR SAVIOVR . / SHAL . APPIER.

At the bottom is an hour-glass, placed transversely above a skull, the latter being flanked by cross-bones and by a spade and a turfing-iron in saltire. In the space between these symbols and the bottom of the panel are the words:

THIS . STONE . WAS . REN/EUED . BY . IOHN . DUNCAN . /
 IN . PIKE . IN . 1729.

No. 73.—David Russell. R.S. 5 feet 10½ inches by 3 feet 4 inches.

A third slab will be found, apparently where it was originally laid, on the left-hand side of the path that leads southwards from opposite **No. 76**. It has a scalloped border, enclosing a scrolled cartouche, which

has a cherub at the top and displays an inscribed panel. In the upper part of the panel is a shield, flanked by the raised initials **DR** and charged: A chevron between three tadpoles. Beneath the shield is the epitaph, arranged in eight lines:

HEIR LYS ANE GOD/LY AND WERTEOVS/ MAN DAVID
RVSSELL/ FEDDINCH HE DEPARTIT/ THIS LYFE THE/
FIRST OF AVGVST 1649/ AND WAS OF AGE/ 68 YEIRS.

There may in the first instance have been a text below the epitaph. If so, it disappeared in the eighteenth century, when the surface was chiselled smooth for about one foot from the bottom of the panel and a new inscription incised upon it:

*Here lyes Thomas Ruffel/ he departed this lyfe on/ the 20 day of
november/ 1738 and of his age seve/nty four years/ 17 38.*

The space beneath the cartouche has almost certainly been occupied by emblems of mortality, such as a skull and cross-bones, in high relief, for the surface has been cut back to the depth of about one inch, all the way to the scalloped border, and has then been utilised to commemorate the wife of Thomas Russell, "deacon of the smiths in St Andrews," and also "seven of their children who died young." Her maiden name was Steuart, and she died on 28th December 1782.

No. 74.—Samuel Rutherford, Master of Arts. (Fig. 12.)

In the "Divinity Corner" stands an ordinary headstone with a pointed top, bearing the name of the famous divine, Samuel Rutherford, who died in 1661. Unless it be that of young Tom Morris, no tombstone in the Churchyard attracts a larger number of pilgrims. I do not know whether attention has been drawn to the point before. But the most superficial comparison with the contents of the Museum will show that it cannot be a contemporary memorial. Except for its abnormal height (5 feet 10 inches above ground)—necessary, if it was to carry the long inscription—it is a characteristically eighteenth-century production, executed long after the extinction of the "school" of monumental sculptors which was flourishing in St Andrews in Rutherford's lifetime. It can hardly be earlier than 1750, and it may be a good deal later. There must, of course, have been an original from which the inscription was copied, for the verses undoubtedly ring true. I would suggest that this was probably a mural tablet which came to grief either through natural decay, like **Nos. 76 and 80**, or in the catastrophe attested

by Nos. 69 and 70, as well as by some of the fragments in the Museum. Alternatively, it may have been a recumbent slab, which had ceased to be easily legible. In either event, Rutherford's name was still one to

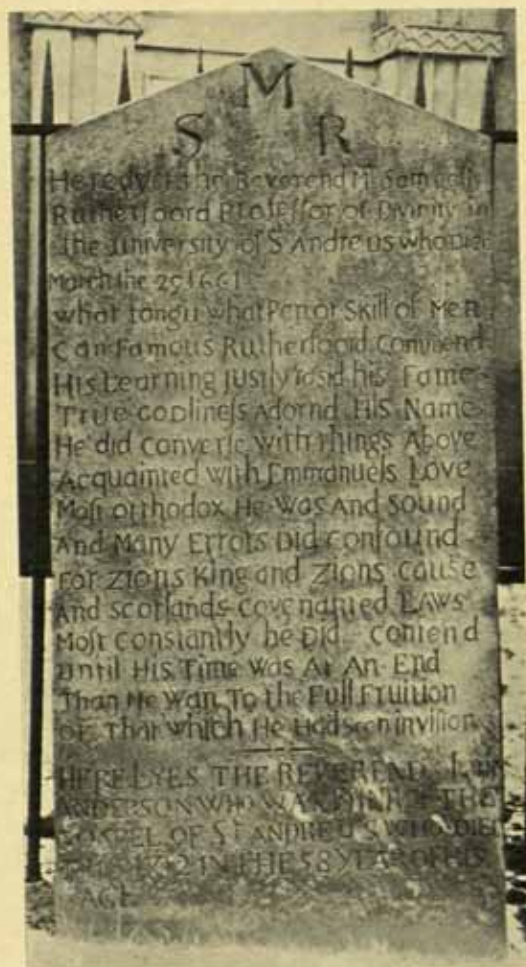


Fig. 12, No. 74.

conjure with, and a replacement would naturally be arranged for by those who would not willingly let his memory die.

At the top are the initials **MSR**, arranged exactly as on the seventeenth-century stones, although there is no attempt to reproduce the

coat-of-arms which may be supposed to have accompanied them. The actual epitaph runs:

Here lyef the Reverend M^r Samuel/ Rutherfoord Profeffor of
Divinity in/ the University of S^t Andreus who Died/ March the 29
1661.

Below are the lines:

what tongu what Pen or Skill of Men
can Famous Rutherfoord commend
His Learning justly rasid his Fame
True Godlinefs Adornd HIS Name
He did converfe with things Above
Acquainted with Emmanuels Love
Moft orthodox He Was And sound
And Many Errors Did confound
For Zions King and Zions cause
And scotlands covenanted LAWS
Moft constantly he Did contend
Until His Time was At An End
Than He Wan To the Full Fruition
OF That which He Had seen in vifion.

At the bottom is a brief inscription in capital letters, commemorating the Rev. John Anderson, Minister of St Andrews, who died in 1712.

D. ON THE ABBEY WALL.

No. 75.—John Lepar. (Fig. 13.)

Built against the inner face of the south side of the Abbey Wall is an exceptionally large and imposing monument, bearing the arms of John Lepar and his wife, Janet Carstairs. It stands 16 feet 9 inches high above ground, and has a maximum breadth of 10 feet 9 inches. Unfortunately its position exposes it to the full fury of the northern blasts, laden with particles of moisture from the sea, so that the soft sandstone used in its construction has disintegrated very badly.

In the relationship of its parts it follows the orders of architecture more closely than any other in the series, for its central and principal portion, which has on each side a pair of panelled pilasters with pedestals, rests on a main pedestal containing three panels, and supports a full entablature and pediment. Between the shafts, round which the cornice, frieze, architrave and sur-base return, is an archway, framing a symbolic panel. The triangular pediment is broken, and is divided by a horizontal bar, above which, flanked by the initials | L, is a shield, sur-

mounted by a wreathed helm with mantling, and charged: A saltire engrailed between four roses, an annulet at point of fess for difference. Below the bar, and inscribed **IANET CARSTARES**, is a scroll, in front of which is a lozenge charged: A chevron between three sun-flowers



Fig. 13, No. 75.

slipped. The date **1646**, in raised figures, is divided equally between the two lower corners of the pediment. No trace survives of the epitaph proper, which was presumably on the central panel of the frieze, the side panels of which are inscribed **IOHNE [LEPAR]**, or possibly on that of the pedestal.

The symbolic panel, being recessed, has suffered less damage than

the rest of the monument. It is divided into two parts by a beaded moulding. In the lower division a parchment roll, displayed, reads:

BLESSED . AR ./ YE . DEAD . Yt ./ DIE . IN . THE ./ LORD .
FROM ./ HENCE . FOR/TH . THEY . REST ./ FROM . THEIR/
LABOVRS . AND/ THEIR . WORKS/ DOE . FOLLOW/ THEM:

On the dexter side is Time, bearded, holding a scythe and having an hour-glass at his feet; from his mouth issues a scroll, inscribed **CVPIO DISSOLVI** ("I long to be brought to an end"). On the sinister side is a female figure, probably Justice, holding what seems to be a sword in her right hand; presumably she had scales in her left hand, but this arm is broken off at the shoulder. In the upper division is a skeleton, stretched at full length upon a roll of cloth, the unwound portion of which serves as a pillow. Above the skeleton is a sugarloaf-shaped hill, up which winds a path, bearing the words *via/ ad/ eter/ni/tat/em* in ascending order. The top of the hill is lost in a circular sea of clouds, fringed with palms and trumpets and thronged with cherubs, all adoring a central sun in his splendour. The three stages obviously symbolise life, death and immortality, but it is difficult to believe that the designer has not been influenced by the scheme of Dante's *Divine Comedy*.

John Lepar was Provost of St Andrews from 1634–37, an exceptionally long period of tenure. On September 26, 1635, he appeared before the Privy Council as head of a deputation to urge that a light should be placed on the Isle of May. On that occasion he described himself as "merchant and awner of a pairt of a schipp." Another worthy who was present was James Sword (**No. 79**), then a bailie.

No. 76.—Clement Cor and Janet Cor.

Built into the inner face of the north side of the Abbey Wall, at a point almost opposite to **No. 75**, is a much weather-worn monument, measuring 10 feet by 5 feet 2 inches. The central panel is framed at the sides by pilasters, which have moulded bases and rest upon a pedestal of masonry. Architrave, frieze and cornice return round the pilasters, these in their turn supporting a triangular pediment with finial. On the pediment, just beneath the apex, is a mullet, placed above a shield which is flanked by the initials **C**(lement) **C**(or), and is charged: A saltire engrailed between two hearts, in chief and in base, and two roses in the flanks, with an annulet for difference. Beneath the first **C** is a second shield, flanked by the initials **H**(enry) **M**(cKieson) and charged: A lion rampant; on a chief, three pheons. A third shield, placed beneath the second **C**, is flanked by the initials **H**(elen) **B**(ellenden) and charged:

A stag's head erased. The lower part of the pediment contains an elegiac couplet, arranged in four lines:

HE[RCV]LEAS · FRANGIT · [VI]/RES · MORS · ATRA · RELINQ/ VIT ·
PESSIMA · SED · QVÆ · SV/NT · OPTIMA · PRIMA · RAPIT

= "Black death breaks the strength of Hercules. What is worst it leaves alone, but what is best it carries off first."

But for a few letters in the first line, the pedimental inscription is still legible. That on the central panel, on the other hand, has disappeared completely, except for the greater part of the last line and a letter or two at the end of the line preceding. For the rest we are dependent on Monteith.¹ First came the epitaph proper:

[HIC SITVS EST VIR PIVS HONORABILIS PRVDENS FORTIS
ET SOBRIVS CLEMENS COR DE REDVALLIS VNA CVM
FILIA SVA IONETA VXORE HENRICI MCKESON CIVIS
EDINBVRGENSIS OBIIT ILLE 2 MARTII ANNO DOM 1608
ÆTATIS SVÆ 75 HÆC AVTEM DIE SEQVENTE ÆTATIS
ANNO 37]

= "Here lies a godly, honest, prudent, brave and sober-minded man, Clement Cor of Reidwalls, along with his daughter Janet, wife of Henry M'Kieson, a burgess of Edinburgh. He died on the 2nd of March, A.D. 1608, in the 75th year of his age, and she on the following day, in the 37th year of her age." Then followed two elegiac couplets:

[SOBRIETATE PRÆIT CVRIVM GRAVITATE CATONEM
IVSTITIÆ ET PVRAE RELIGIONIS AMANS
COMIS ET VRBANVS PRVDENS EN NOMEN ET OMEN
CONVENIVNT CL]EME/[NS] CORCVLVVS HIC SITVS EST.

"He excelled Curius² in sobriety of judgment, Cato in weight of character. He was a lover of justice and of pure religion and undefiled, courteous and refined, prudent. Lo! his name gives the key to his character. Here Clement Corculus lies buried." The change from "Cor" to "Corculus" is explained by a passage in the *Tusculan Disputations*, where Cicero, after stating that some believed the heart (*cor*) to be the seat of intelligence, adds, as one of his illustrations, that Scipio Nasica was called "Corculum" because of his sagacity.³

Monteith translates the surname, and describes the epitaph as that of "Clement Heart." He evidently did not know that Clement Cor

¹ Theater (1713), pp. 106 f.

² Probably M'. Curius, the friend and correspondent of Cicero, who describes him as "*suavissimum hominem et summi officii summaeque humanitatis*" (*Ad Fam.* XVI. iv. 2).

³ *Op. cit.*, I. ix. 18.

was a prominent figure in Edinburgh life about the end of the sixteenth century. Mr C. B. Boog Watson has kindly collected for me a number of interesting references from the Burgh Records and elsewhere. From these it appears that Cor was made a burgess and guildbrother in 1566, and that he was Dean of Guild in 1588. He was a bailie of Edinburgh between 1589 and 1595. In 1579 he acquired a property in High Street. This is the tenement at the head of the Advocate's Close, "formerly called Clement Cor's Close,"¹ on which his arms and initials, as well as the initials of his wife, Helen Bellenden or Ballantyne, are still to be seen. In 1603 he conveyed it to his daughter, Margaret Cor, and her husband, Alexander Livingstone, advocate. From information supplied me by Mr Henry M. Paton it would appear that by now he had made up his mind to retire to the neighbourhood of St Andrews, if he had not already done so. The evidence is as follows:

In the Register of Fife Sasines in the year 1604 there are sasines of Clement Cor, "merchant burgess of Edinburgh," and Helen Bellenden, his spouse, also of their daughters Isobel, Bessie, and Janet, in the lands of Reidwalls in the barony of Ardrrie (cf. No. 68). Margaret had thus three sisters—Janet, who is buried here, Bessie, who may have died unmarried, and Isobel, who is proved by the Great Seal Register to have been the wife of Robert Lumsden of Ardrrie. Under date 28th May 1605, the King confirms a Charter by Robert Lumsden of Ardrrie with consent of Isobel Cor, his spouse, and Clement Cor, merchant burgess of Edinburgh, her father, and his wife, Helen Bellenden. There is reason to suppose that the connection with St Andrews may have been of earlier date and also more intimate than one might have suspected. Mr Paton has found from the Register of Privy Council that on 16th September 1602 there was a Bond of Cautionary by Thomas Lumsden, "merchant burgess of Edinburgh," on behalf of Clement Cor, "merchant, citizen in St Androis." Were there two Clement Cors?² Or had the

¹ *Annuity Roll* of 1634, p. 104. See also *The Advocate's Close*, by John K. Laidlaw, S.S.C. (Edinburgh, 1927).

² The compiler of the Index to vol. vi. of the Privy Council Register believed that there were two. The bond was for 400 marks "not to harm Petir Houstoun, brother of the Laird of Houstoun." Almost immediately afterwards Clement Cor appears again in connection with two other bonds, the first executed at Falkland and the second at St Andrews. In both cases the amount of the bond and its object were the same as before. In neither case is Cor designated "citizen of St Andrews," although he is one of a company who all seem to be St Andrews people. But an earlier entry in the same volume records that on 12th November, 1599, Clement Cor "burgess of Edinburgh" was charged with "hamesucken." He and three others "armed with hagbuts and pistoletis" had broken into the home of Archibald Inglis at Eyemouth and had haled Inglis off as captive to the Tolbooth of Edinburgh, where they "patt him in the irlis amang thevis and malefactouris." The taking of the bonds for the protection of Peter Houston could thus seem to have been anything but an unnecessary precaution.

one Clement Cor a foot in both camps? The latter alternative is surely the easier, and it is worth noting that Clement Cor's last appearance in the *Extracts from the Records of the Burgh of Edinburgh* is on 3rd November, 1598, in connection with the enlargement of the East Kirk. In any event there is no doubt as to the identity of the man commemorated on **No. 76**.

No. 77.—John Echlin, Master of Arts.

This memorial (9 feet 4 inches by 4 feet 3 inches), which is on the same wall, a little to the west of **No. 76**, is distinguished only by the excellence of its lettering. A moulded frame, having a stone pedestal and a rudimentary cornice, encloses an upright oblong panel. The side mouldings repeat, separated by a fillet over which the cornice is returned on a corbel. Above the cornice is a semicircular panel, enclosed by a heavy hood-mould. On the main panel, beneath the letters **D(eo)** **O(ptimo)** **M(aximo)** **S(acrum)** ("Dedicated to God, Almighty and All-good"), is the epitaph:

HIC · SITVS · EST · VIR · / DOCTISS · M · IOHAN · / ECHLIN ·
A · PITTADRO/ QVI · BONAS · LITERAS · / ET · PHILOS ·
IN · COLLE/GIO · LEONARDINO/ AMOS · XII · CVM · SIN/
GVLARI · INGENII · ET · ERVDITIONIS · LAV/DE · DOCVIT ·
PIE · ET · / PLACIDE · OBIIT · VII · / NOVEMB · MDCIII · /
ÆTAT · 52

"Here lies a very learned man, John Echlin of Pittadro, Master of Arts, who taught literature and philosophy in St Leonard's College for twelve years, winning a high reputation for ability and learning. He died peacefully in the Lord on 7th November, 1603, aged 52." The semicircular panel contains a large shield, surmounted by **M**(agister), flanked by the initials **IE**, and charged: Quarterly, 1st A stag courant, 2nd A talbot courant, 3rd A lymphad, 4th A fess checky—for Echlin. Beneath the **I** is **HVI9/ HABET/ PIETAS/ VENTVRÆ/ ET PRÆMIA/ VITÆ**—"Piety reaps the rewards of this life and of that which is to come," and beneath the **E** is **DVL/CE · MI/HI · CHRI/STO/ VIVE/RE · DVLCE/ MORI**—"Tis joy to me to live for Christ, and joy to die." The two together form an elegiac couplet, and in a lower division of the same panel, arranged in three lines, is a second elegiac couplet:

IMMATVRA · NIMIS · NE · QVIS · MEA · / FATA · QVERATVR
NVNC · VITAM · HANC · / VITA · PERPETE · PENSO · B[RE]VEM

"Let none grieve overmuch for my too early death. I am now restoring the balance of my short life on earth by life everlasting."

John Echlin was in all likelihood a son of William Echlin and Alison Melville, his wife, to whom James V granted Pittadro by charter in 1542.¹ Little or nothing seems to be known about him or his regency in St Leonard's College.

No. 78.—**Helen Myrton**, widow of Colonel Andrew Traill and wife of Sir Robert Dennistoun, and **Matilda Melville**, her daughter-in-law, wife of James Traill.

Also built into the inner face of the south side of the Wall, but a little to the west of **No. 77**, is a monument (9 feet 6 inches by 4 feet), the inscription on which has entirely disappeared. Initials and armorial bearings, however, enable us to identify it with one which bore an epitaph recorded by Monteith.

A pedestal, with a bracket at each end, supports a central panel, framed at the sides by panelled pilasters with moulded bases and Ionic capitals. Architrave and frieze return round the pilasters, and on the cornice rests a rectangular superstructure, composed of three panels, each displaying initials and armorial bearings. The one on the dexter side bears a shield, surmounted by the initials **A T**, flanked by **H M**, and charged: Dexter, a chevron between two mascles in chief and a trefoil slipped in base; sinister, three roundels—for Traill of Blebo impaling Myrton of Cambo. On the one in the centre the initials **A T** are replaced by **R D**, and the dexter charge becomes: A bend between a unicorn's head erased in chief and a cross-crosslet fitchy in base—for Dennistoun of Montjoy impaling Myrton. The shield on the sinister panel is surmounted by **I T**, flanked by **M M**, and charged: Dexter, a chevron between two mascles in chief and a trefoil slipped in base; sinister, three cushions—for Traill impaling Melville. The superstructure serves as the base of a curvilinear pediment, which contains an orb, flanked by the date **16 09**, and which has on either side a finial capped with a vase.²

The central panel (2 feet 8 inches by 1 foot 10 inches) must have held the inscription, which Monteith³ gives as:

MEMORIÆ SACRVM HELENÆ MYRTONÆ OPTIMÆ
MATRONÆ D ANDREÆ TRALLII TRIBVNI MILITVM
VIRI OPTIMI PRIMVM CONIVGIS DEIN D ROBERTI
DANESTONI EQVITIS CONSILIARII CONSERVATORIS QVÆ
OBIIT 13 FEB 1608 NECNON MATHILDÆ MELVINÆ

¹ See *Genealogical Memoirs of the Echlin Family*, etc. by Rev. John R. Echlin, M.A., 2nd edition (Privately printed, Edinburgh, n.d.), p. 24—a rare book, for a sight of which I am indebted to Mr G. H. Bushnell, whom I have also to thank for valuable help in connection with **No. 70**.

² The dexter vase has disappeared.

³ *Theater* (1713), pp. 109 f.

IACOBI TRALLII CONVGIS LECTISSIMÆ ET PIISSIMÆ
FŒMINÆ MŒERENS POSVIT OBIIT 23 NOVEMBRIS 1608

= "Sacred to the memory of Helen Myrton, wife first of that excellent man, Colonel Andrew Traill, and afterwards of Sir Robert Dennistoun, knight, Privy Councillor, and Conservator.¹ She died 13th Feb. 1608. Also to the memory of Matilda Melville, wife of James Traill, one of the best and most godly of women, a tribute of grief. She died 23rd November 1608." One might have expected *ILLE* or some such word as subject to *POSVIT*. It was obviously James Traill, a son of the first marriage, who erected the monument to his mother and his wife.

No. 79.—James Sword.

Still further west is the tomb of James Sword. This freely treated Renaissance monument (13 feet 4 inches by 7 feet 9 inches), the stone of which has successfully withstood exposure to the weather for nearly three centuries, comprises a pedestal, a central division, and a superstructure surmounted by a pediment, all three divisions framed at the sides by pilasters, round which the flatly moulded bases and cornices return. The superstructure has scrolled trusses at each side, and its pilasters and cornice enclose a panel, on which is a scrolled cartouche displaying a round shield. The shield, on the upper margin of which is the name *JAMES SWORD*, is parted per pale and charged: Dexter, a heart, pierced by two darts saltire-wise, between a spur in chief and a rose in base; sinister, on a bend sinister coupé, three mullets. Beneath, in relief, are the initials *IS* and *CB*, separated by a lozenge, and the date 1657. The pediment is occupied by the remainder of the epitaph proper, arranged in four lines, the lettering being large and in relief: *QVI/ OBIIT/ 6 FEBR/ ÆTAT SVAE 54*, = "who died Feb. 6, aged 54."

The central division is distinguished by a pair of fluted pilasters at each side, with foliage between them, and contains a scrolled and strap-worked cartouche, displaying an oblong panel with a beading as border. Between each of the inner pilasters and the cartouche is an hour-glass. The panel has an inscription of eight Latin hexameters:

GLORIA · MVNICEPVM · QVONDAM · NVNC · ALTA · GRAVEDO
LAVS · OLIM · IAM · MÆROR · HAC · IN · LINCHYTE² · QVIESCIT
CVIVS · VITA · FVIT · PROBITATIS · NORMVLA · VERÆ
VRBEM ANDREIAIAM DIVTVRNA PACE GVBERNANS

¹ He was "Conservator of the Scottish Privileges in the Netherlands." His monument is a conspicuous feature of Greyfriars Churchyard, Edinburgh.

² For *LYCHNITE*. Monteith (*Theater* (1713), p. 114) corrects this and the other misspellings *sub silentio*.

FIDVS IN OFFICIO CVNCTIS ET IVRA MINISTRANS
 NON PROPRIIS INHIANS IN PVBLICA COMODA PRONVS
 MENS INVICTA MALIS NEMIS HAVD ELATA SECVNDIS
 VIXERAT IN CHRISTO IN CHRISTO SVA VOTA SVPREMA

= "In this marble tomb rests one in whom his fellow-townsmen aforetime gloried and whom to-day they mourn profoundly, once lauded, now lamented, for he made his life a pattern of true probity, ruling the city of St Andrews in abiding peace, faithful in office to all, administering the law not with an eye to his own advantage but intent on the public good, a spirit invincible when fortune frowned nor elated overmuch when she smiled. He had lived in Christ, and in Christ his last prayers were centred." On the pedestal are the words: **MORS VLTIMA RERV** ("Death is the end of things"), and beneath them three panels, containing respectively, from left to right, a spade and a turfing-iron in saltire, a skull and crossbones, and two coffins placed saltire-wise with two carrying spokes behind them.

James Sword, who was Provost of St Andrews in 1646 and again in 1654-55, was a person of more than municipal importance in his day. The Register of the Privy Council shows that in 1643 he was appointed a "commissioner for the mater of the manufactoreis" and subsequently one of the "conservators of the peace," and also that in the same year he supplied money for the maintenance of the Scottish army in Ireland. His wife's name was Christian Brydie. It is not unlikely that she was a sister of Anna Brydie (No. 29), whose inventory she gave up. If so, for her parents see No. 34.

No. 80.—Unknown.

A short distance beyond the Sword monument is what has been rather a tasteful memorial of reddish sandstone, measuring 10 feet by 5 feet 1 inch. Unfortunately the material is so friable that practically nothing remains legible. A pedestal, returned at either end, has cross-bones on the sinister side, but any other emblems it may have borne have disappeared. On the pedestal rests a tablet enclosed by a moulded framework, including two engaged pilasters of Corinthian style, round which the base and above which the architrave and the frieze return. The cornice supports a triangular pediment, having side-scrolls and surmounted by a large thistle as finial. The tablet bears a scrolled cartouche, displaying a panel which has once been inscribed. All that is visible in the pediment is 16, obviously the first half of a date.

No. 81.—Katharine Clephane.

Built into a tower a little to the west of **No. 80** is another much-decayed monument, 9 feet 8 inches high by 4 feet 10 inches broad. Two brackets, inscribed respectively **16** and **09** and having a cherub midway between them, support a tablet enclosed by a moulded framework, on the sides of which are two engaged and panelled pilasters of Ionic style. The base returns round the columns and the frieze above them. On the cornice rests a segmental pediment, surmounted by three finials, the centre one of which is broken off, while the two at the sides have borne coats-of-arms, now hopelessly defaced. Within the pediment is a panel, which contains a shield, flanked at the sides by the initials **K C** and beneath by the date **16 09**, and charged: A lion rampant, helmed. These were the arms of the Clephanes of Carslogie.

No. 82.—Katharine Duddingston. (Fig. 14).

Beyond the tower is a monument (10 feet 4 inches by 6 feet 10 inches), which presents some unusual features. A pedestal formed of large blocks of ashlar, which are enclosed by a projecting base, side-pillars and a moulded cornice, supports two pairs of twin shafts with moulded bases and enriched capitals. Between the two innermost shafts is a moulded framework, which includes a cornice and surrounds four somewhat smaller blocks of ashlar, on three of which lettering is visible. On the four twin shafts and the associated cornice there rests an entablature, the frieze of which has cut on it an elegiac couplet:

CASTA · PVDICA · GRAVIS · PIA · CONIVGIS · VNIVS · VXOR
QVÆ · PERIIT · PARIENS · HIC · KATHARINA · IACET

= "Chaste, modest, sober-minded, godly, the wife of one husband, Katharine, who died in childbed, lies here." The entablature in its turn supports a broken pediment, with side-scrolls, in the centre of which, and resting upon the cornice, is a moulded rectangular panel containing two shields side by side, the charges on both being now indecipherable.

The appearance of the ashlar blocks in the centre, and still more the manner in which the inscription they bear is arranged, raise serious doubts as to whether they were originally intended for the purpose to which they have been put. Even when every allowance has been made for disintegration, they are badly jointed, while the one which occupies what may be termed, in heraldic phraseology, the 4th quarter has been too soft to carry lettering at all. Moreover, its weakness in this respect seems to have been recognised from the outset. For, while the marginal

line has been produced downwards on to it from the 2nd quarter, the actual inscription has been completed on the 3rd quarter by the simple device of sacrificing symmetry and halving the length of the lines. It is possible that in the first instance the four blocks were meant to be no



Fig. 14, No. 82.

more than a backing for a thin slab of different material which bore the inscription, and that what we see (Fig. 15) is the result either of a change of plan or of the breakage of the slab.

As things now are, the letters are very difficult to make out. But, with the help of Monteith's record¹ and of photographs taken at different angles, a tolerably certain reading can be given:

¹ *Theater* (1713), p. 125.

1st Quarter	ORNATISSIMÆ · LECTISSIMA EQ[VE · F]OEMINÆ · KATHARINÆ DVDDINGSTO/[N]Æ · VXORI · ME RITISSIMÆ · M/ARITVS · SVPER STES · T · L · M[OER/E]NS · HOC · POS VIT · MONVMEN	2nd Quarter
3rd Quarter	VM · AMORIS · MN EMOSYNEN · OBI IT · APR · 15 · AN [NO · 1614 · ÆT · 36]	4th Quarter (blank)

=“To a most accomplished and exceptional woman, Katharine Duddingston, the very best of wives, her sorrowing husband T. L., who survives her, has erected this monument as an abiding token of love. She died on April 15th in the year 1614, the 36th of her age.” Had the coats-of-arms survived, we should have known who T. L. was. As it is, we can only guess. Conceivably he was Thomas Lentron, who became Provost in 1619.



Fig. 15. Epitaph on No. 82.

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III.

AN UNRECORDED STONE CIRCLE, LOCH SEAFORTH,
LEWIS. By WALLACE THORNEYCROFT, F.S.A.Scot.

This stone circle is on the northern shore of Loch Seaforth, one mile west from the cottage called Fangs at Seaforth head. It lies close to

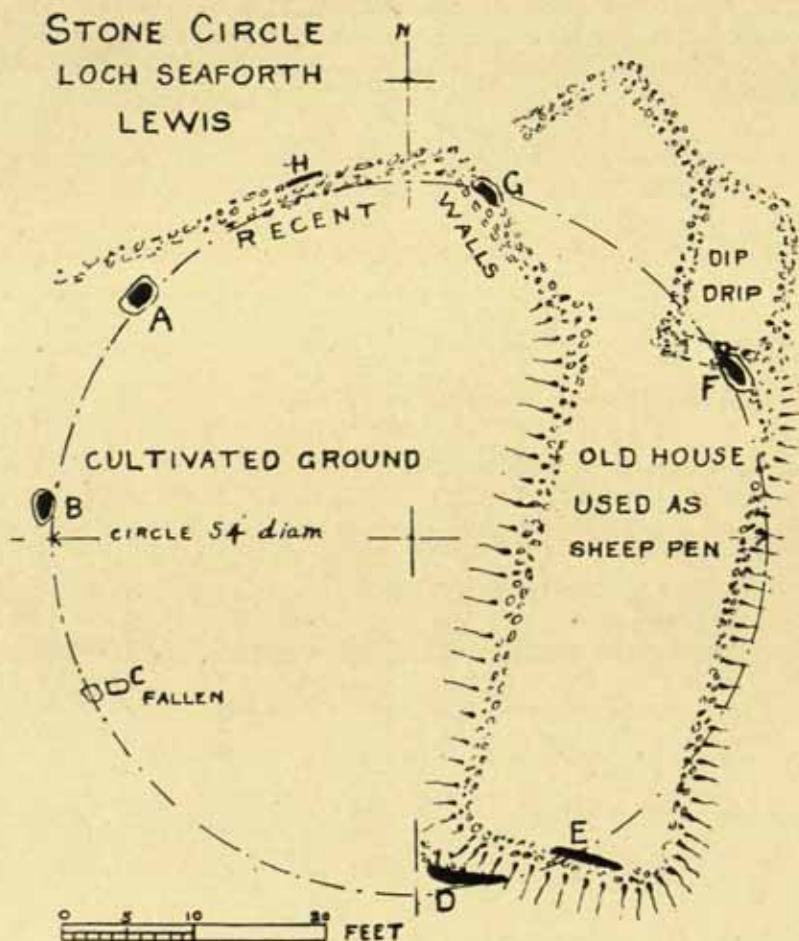


Fig. 1. Stone Circle, Loch Seaforth, Lewis—Plan.

UNRECORDED STONE CIRCLE, LOCH SEAFORTH, LEWIS. 123

the shore on a remnant of a raised beach, the centre being about 70 feet from the present high-water mark. Latitude $58^{\circ} 3' 19.6''$ N. Longitude $6^{\circ} 36' 53.5''$ W.

The present house on M'Lellan's croft, which is not shown on the



Fig. 2. Stones in Circle at Loch Seaforth.

6-inch Ordnance Map, surveyed 1851 and revised 1896, is a short distance east of it, and the track to this house leaves the road from Balallan to Eishken Lodge, where it begins to bend eastwards above the shore of Loch Seaforth.

There are seven stones visible, marked A B C D E F G on the plan, set on the circumference of a circle about 54 feet in diameter (fig. 1).

Stone A stands 5 feet 6 inches above the present ground-level, stone B 4 feet 3 inches, and the rest about the same (fig. 2). C is broken and lies on the ground. Stones D and E have been moved and turned on edge to form part of the walls of a house built more than 120 years ago and subsequently abandoned. F was also built into the wall but upright. It is possible that there was another stone built in between E and F, but it is not visible. G is built into a modern wall.

When M'Lellan took over this croft about forty years ago he was instructed by the estate officials not to move these stones.

The keeper, who has been on the place more than fifty years, thinks that there were at least 4 large flat stones lying near the centre. H, which is $4\frac{1}{2}$ inches thick, may be one of them now built into the recent wall; there is another inside the sheep pen.

IV.

SCOTS ZOOMORPHIC PENANNULAR BROOCHES.

By H. E. KILBRIDE-JONES, F.S.A.Scot.

This paper is but the prologue to a dissertation of some length. For that reason it does not claim to be comprehensive, but is intended to serve as an introduction to the study of the zoomorphic penannular brooch and its distribution in these islands. The present paper is confined to a study of the Scottish brooches.

The type of penannular brooch which forms the subject of this paper derives its name from the fact that its terminals simulate the head of an animal—head, ears, eyes, and snout being all represented in the fully developed form. The type is peculiar to these islands.¹ Apart from the fifteen specimens² from Scotland, there are many examples from England and Wales, but the type is most numerous in Ireland. The history of the origin and development of the type is singularly complete; but, in the course of the present paper, only the early history of the brooch in Scotland will be considered. Finally, it has not been found

¹ This statement is not intended to imply that the penannular brooch itself was invented in these islands; it refers only to the penannular brooches with the peculiar treatment of the terminals as outlined hereafter.

² Only thirteen brooches are considered in the present paper. The remaining two specimens belong to a later episode in the history of the series, and do not come within the scope of the present paper.

possible here, for reasons of space, to consider that history as others have visualised it.¹

There seems to be little doubt that the forerunner of the present series of zoomorphic penannular brooches was a native adaptation of a Roman original. That original, being in the nature of a foreign product, or the product of foreigners, would be somewhat repugnant to the average Briton; so that, whilst the idea had much to commend it, he thought to adapt it to his own ideals. The result is a product such as that figured in fig. 1, No. 1, which, unfortunately, bears no locality. The manner in which such a brooch differs from any other form of penannular brooch is in the treatment of the terminals. The terminals themselves are formed by flattening the ends of the hoop, and then doubling back those ends upon themselves. This was done to prevent the pin from slipping through the opening in the hoop. But these native-made brooches also differ in so far as the terminals are pressed flat, and they have had given to them a characteristic constriction.

Although few in number, these native-made brooches have been found up and down these islands from Cambridgeshire to the Orkneys, but the type, if more abundant in Scotland, where there are five examples,² is of southern origin. In England, specimens have been recorded from Hauxton, Cambs.³ (fig. 3, No. 9), from Margidunum, Notts.⁴ (fig. 3, No. 10), and from Duston, Northants.⁵ Two brooches, one from the Roman fortress at Caerleon, Monmouthshire,⁶ and another from Caerleib, Anglesey,⁷ seem to be the sole specimens from Wales. Our assumption of a southern origin for the type at present under consideration is based almost solely on the date and development of the Margidunum brooch (fig. 3, No. 10). This brooch, which, because it was out of date, had been fashioned into a finger-ring, provides the one important and essential link in the chain of evidence, without which it would be almost impossible to complete the typological series—that is, with any degree of certainty.

The Margidunum brooch shows a slight advance in technique over the preceding examples. The terminal, instead of having a single

¹ Cf. *Archæologia*, vol. lxxv. p. 223.

² Four of these are illustrated in fig. 1, Nos. 1-4. Their locations are: no locality; Midhowe Broch, Rousay, Orkney; Traprain Law, East Lothian; Newstead, Roxburghshire. There is one-half of another specimen, similar to No. 3, also from Traprain Law.

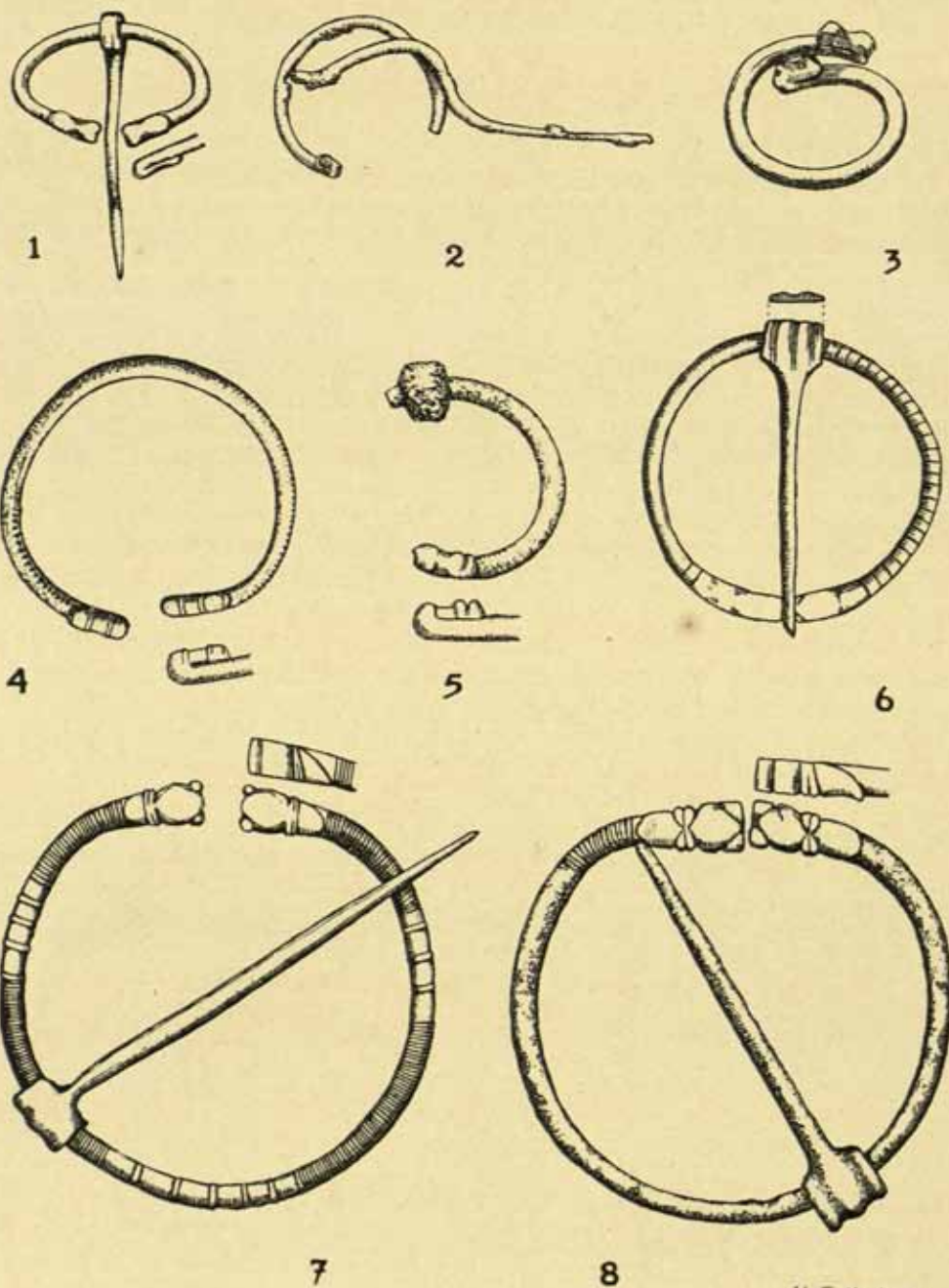
³ I am indebted to Professor R. A. S. Macalister for permission to publish this brooch here.

⁴ I am indebted to Dr Felix Oswald for kindly supplying information and a drawing of this brooch, through the courtesy of Sir George Macdonald.

⁵ Baldwin Brown, *Arts in Early England*, vol. iii., pl. xxxvii., No. 4.

⁶ *Arch. Camb.*, vol. lxxxvii. p. 89, fig. 37, No. 4.

⁷ *Ibid.*, vol. xii., plate following p. 214.



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Fig. 1. Scottish Zoomorphic Bronze Penannular Brooches: No. 1, no locality; No. 2, Midhowe Broch, Orkney; Nos. 3, 5, and 8, Traprain Law, East Lothian; No. 4, Newstead Roman Fort; No. 6, Okstrow Broch, Orkney; No. 7, Longfagh, Midlothian (†).

constriction, has now got two; and one of these constrictions (that on the left) is accentuated by a line having been stamped across it. Moreover, an important beginning has been made in the matter of decoration. To the left of, and near the terminal, a single line will be observed, stamped on the hoop. This was an idea which was to strike a popular note as regards decoration, and this single line suggested all the later forms of ribbing. According to Dr Oswald, the date of this brooch cannot be later than A.D. 62,¹ so that, in consequence of that fact, we observe the necessity of considerably readjusting our ideas concerning the date of such brooches. Taking this date into consideration, it is obvious that little time could have been wasted by the native population in devising their own designs after having seen the first penannular brooch, and in view of the assumed antiquity of the Margidunum brooch at A.D. 62 (owing to its having been converted into a finger-ring) it would seem that the earlier specimens with a single constriction of the terminal could not have been made later than the beginning of the first century A.D.

Something like half a century seems to have elapsed before this form of penannular brooch penetrated into Scotland. At a first glance, the lapse of time would appear to be even greater, since the brooch from Traprain Law (fig. 1, No. 3) was found in a second-century context. It came from the third level, a level which produced bow fibulae and Roman ware of the second-third centuries.² It will be noticed that this is another case of a brooch being adapted to fit the finger. The only suitable explanation for its presence in a late second-century context is that it must have been an heirloom, and was handed down by two or three generations of the same family. That it cannot possibly be of late second-century manufacture is proved, and that on evidence from the same site, because the brooch figured in fig. 2, No. 6 also came from the third level.

A specimen that might have been imported at a comparatively early period is that of fig. 1, No. 2, from the broch of Midhowe, Rousay, Orkney. Like the people of the Caithness brochs, those at Midhowe were in contact with Roman civilisation, as we observe from the occurrence of small sherds of Samian and other dark-coloured ware from the Rousay site.³ Fragments of a bronze patera were also found within the broch.⁴ The brooch was found in a passage outside the broch. We know, of course, that Roman pottery of first-century type has been found in the Everley broch, Caithness,⁵ so that there is the

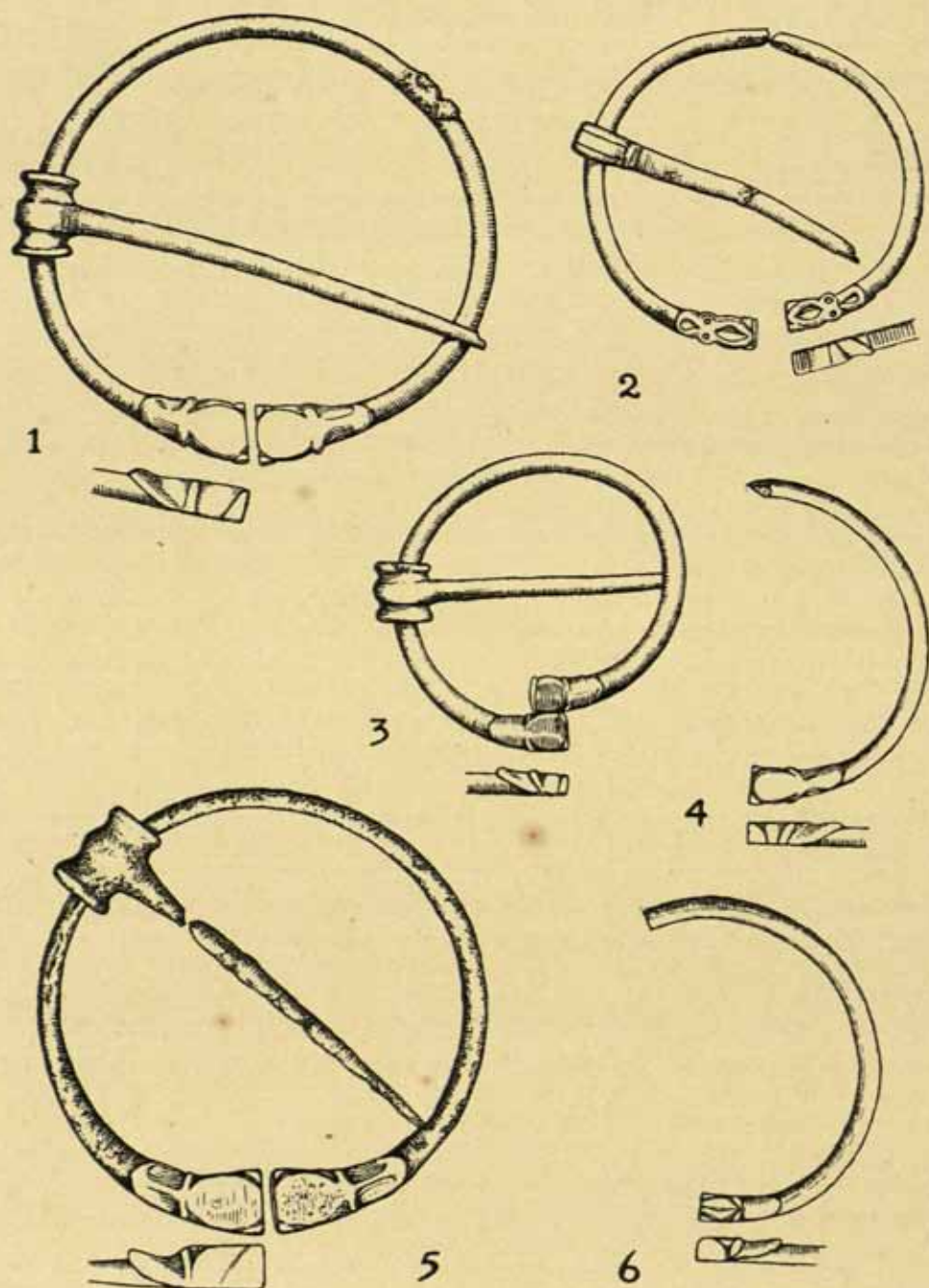
¹ Dr Oswald, in a letter written to the author, expresses the opinion that the owner of this ring (it was found on his little finger, left hand) was a victim of the Boudiecan insurrection of A.D. 62.

² *Proc. Soc. Ant. Scot.*, vol. liv. p. 78.

⁴ *Ibid.*, p. 466.

³ *Ibid.*, vol. lxviii. p. 462.

⁵ *Journal Roman Studies*, vol. xxii. p. 74.



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Fig. 2. Scottish Zoomorphic Bronze Penannular Brooches: No. 1, Aikerness Broch, Orkney; No. 2, Barnton, Midlothian; Nos. 3 and 6, Traprain Law; No. 4, no locality; No. 5, Pinhoulland, Shetland (†).

possibility of this brooch having reached Rousay by the end of the first century.

Our assumption of a first-century date for the form of brooch under discussion is borne out by the discovery of another example (fig. 1, No. 4) at the Roman frontier post at Newstead.¹ In this specimen, the two constrictions noted on the terminal of the Margidunum brooch have given way to a couple of raised bands on each terminal. This is to accentuate a feature, so that the present brooch forms a distinct advance on the earlier southern specimen. Moreover, the single line stamped on the hoop of the Margidunum brooch, near the terminal, has now given rise to a whole series of nicks on the side of the hoop of the northern example. These have not been continued round the whole circumference, but proceed for unequal distances on both sides from each of the two terminals. It is an experiment in decoration carried a stage further. Another noteworthy feature is the tendency for the hoop to increase in size. Unfortunately, the Newstead brooch cannot be dated exactly, but nevertheless it seems to belong to the original occupation of the fort c. A.D. 80. This brooch came from a site which yielded several other forms of penannular fibulae, forms typical of so many Roman sites; but with the discovery of the zoomorphic pin² (fig. 3, No. 1) it would seem that the invaders also liked to acquire curiosities from native craftsmen. The Newstead brooch may have been acquired as a curiosity in the south, since the specimen found at Caerleon was very like it in detail. The latter was found in a surface deposit, so that here nothing is added to our knowledge of the exact date of the type at this stage in its development.

It will have been noticed that all the developments, in the several brooches so far reviewed, have taken place south of the Border. In turning to a consideration of the incomplete specimen from Traprain Law³ (fig. 1, No. 5) we feel that subsequent happenings took place on Scottish soil. This brooch is somewhat reminiscent of the Newstead specimen, but it shows one important and striking advance; the terminal, instead of being doubled-back, is now a solid affair, but it has been fashioned in such a way as to appear like a doubled-back terminal. This is a most important development, which was to have far-reaching effects. It seems strange that the craftsman should find it necessary to disguise the terminal in this way, and this perhaps serves to show how popular was the doubled-back feature. The two raised bands on the Newstead brooch have now given way to a constriction and an incision on the Traprain specimen. The incision has been moved very near to the end of

¹ Jas. Curle, *Newstead*, p. 346.

² *Proc. Soc. Ant. Scot.*, vol. I, p. 101.

³ *Ibid.*, pl. xcii., No. 11, p. 337.

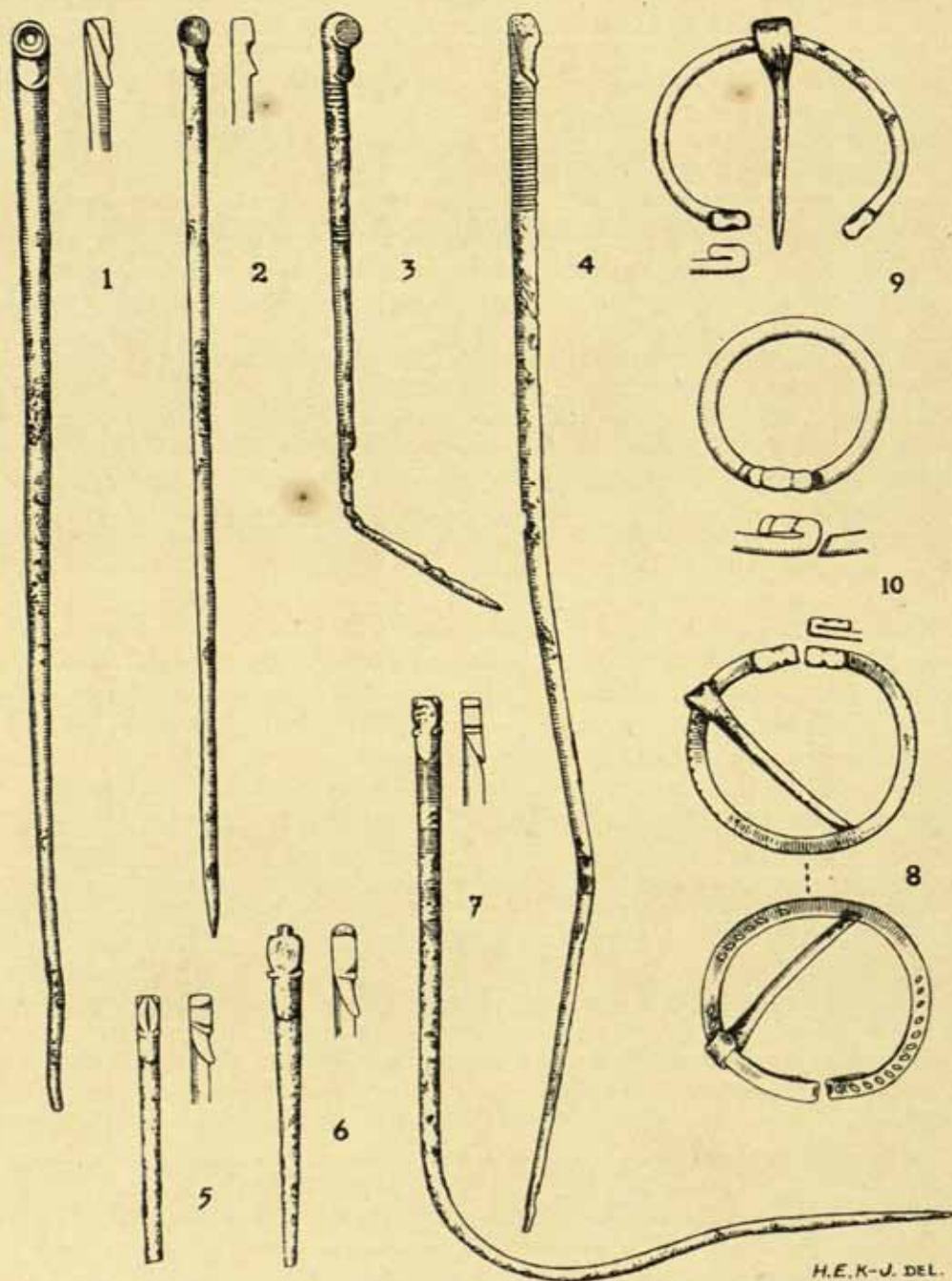


Fig. 3. Scottish Zoomorphic-headed Pins and English Zoomorphic Penannular Brooches of Bronze: No. 1, Newstead; No. 2, Covesea, Morayshire; Nos. 3-7, Traprain; No. 9, Hauxton, Cambs; No. 10, Margidunum, Notts (†).

the terminal, and is therefore likely to disappear soon. The constriction is of a different nature from those noted on the earlier brooches; it is sharply defined, and, when viewed from above, has a triangular appearance.

No mention has yet been made of the zoomorphic character of the brooches. So far, that peculiarity has not manifested itself, although the last-named specimen would seem to show that the craftsmen were toying with the idea at this period.¹ In Nos. 1-5, fig. 1, we have noted the subtle changes that have taken place, and the impression conveyed has been that the craftsmen have been endeavouring to devise some form of design that would differ in all its essentials from anything that had been produced so far. In the last specimen from Traprain Law we were very near to something that is going to differ widely from its predecessors. We are here faced with a gap in the series,² but we can easily imagine what would happen. Once the incision on the inner end of the terminal is dispensed with, and the terminal itself ceases to imitate any longer the doubled-back feature of its predecessors, it is not difficult to visualise the outcome. Actually, the outcome of this trend in design is exemplified in the brooch from the broch of Okstrow, Birsay, Orkney³ (fig. 1, No. 6).

A production that might assist in spanning the gap between brooches Nos. 5 and 6 on fig. 1 is the pin illustrated in fig. 3, No. 3, which comes from Traprain Law. Here all pretence of imitating anything in the nature of a doubled-back terminal has been abandoned; the incision on the inner end of the terminal has gone, and the outer end has been accentuated into a round "head." The pin from Covesea Cave, Morayshire⁴ (fig. 3, No. 2) is also somewhat reminiscent of this example. The Traprain Law pin has also upon the stem two small bands of ribbing. It came from the lowest level in the excavations of 1914, a level which yielded *terra sigillata* of the first century, but bow and knee fibulae of the second century. This disparity of periods, represented by the pottery and the fibulae, should serve as a warning against attaching too much importance to the contexts in which some of the penannular brooches from the same site were found. If we assign the pin to the period represented by the pottery, it fills the gap very well. In turning to another pin from Traprain Law⁵ (fig. 3, No. 4, found in the third level), we observe what

¹ As much was implied when it was suggested that the terminal "has seemingly been fashioned into a zoomorphic form." *Ibid.*, p. 101.

² This gap in the sequence can probably be explained away by reference to the fact that so few sites of this period have been systematically investigated. Traprain Law still remains the one site in the east that has been systematically excavated. The missing link may yet turn up.

³ *Proc. Soc. Ant. Scot.*, vol. xi, p. 85.

⁴ *Ibid.*, vol. lxxv, p. 196. The pin is assigned to the "Roman period," whatever that may mean.

⁵ *Ibid.*, vol. liv, p. 79.

happened due to a decrease in prominence of the details of the pin-head. The ribbing here, however, is much more definite.

We have seen, on the evidence of these pins, that there is a tendency for the "head" and "snout" of the embryonic zoomorph to diminish, not so much in size as in prominence, until it seems likely that soon the pin-head will become on a level with the stem. It would be at this stage that some craftsman hit on the happy idea of omitting to round off the head, the usual practice until now, but, instead, marked off the somewhat squared corners with a couple of nicks with a sharp point, to suggest to the mind what was not obvious to the eye. The result of this pleasant disposition to laxity is to be seen in the brooch from the broch of Okstrow, Birsay, Orkney. It was indeed a happy thought; and it seems that, in spite of his lapse, the craftsman possessed an artistic eye, for, with some precision, he set about decorating the hoop with ribbing (which, incidentally, is now quite pronounced and definite), although he got no farther than half the circuit of the hoop.¹ Perhaps this indifference to convention was the result of fatigue produced by an endeavour to solve the problem of providing a really artistic and serviceable pin-head for the brooch, for here he has shown quite considerable originality, although the result of his efforts was not entirely satisfactory. This need for a heavier pin was the result of an increase in the size of the hoop, and a rather wide, plain pin-head would hardly enhance the appearance of any brooch. Hence the craftsman's efforts to relieve the plainness, and the provision of a couple of raised mouldings; but the result left much to be desired.

It seems curious that this brooch should have been found so far north. Probably it was traded there. In any case, Orkney seems to have been well supplied with brooches from the very beginning of the history of the type in Scotland, as we have already observed from our consideration of the Midhowe specimen. It is notable that all the Orkney brooches were found on broch sites, and broch-dwellers seem to have been notorious for acquiring strange objects. There would appear to be no indication that any of the Orkney brooches were made locally, and they probably found their way north in the same manner as the *terra sigillata* that has come to light in our northern brochs.² But a

¹ There seems to be little doubt about the original intentions of the craftsman, for it will be seen that a start had been made with the ribbing to the left of the left-hand terminal.

² Attention has already been drawn (p. 127) to the occurrence of first-century ware in Caithness. The very clear and precise knowledge of our east coast shown by Ptolemy would seem to suggest that navigation up and down the coast was quite general in the middle of the second century, and it is quite possible that it may have been so in the first century. Men of Agricola's fleet ventured as far as the Orkneys, and they were not the only Roman sailors to sail so far afield (*Journal Roman Studies*, vol. ix. p. 138).

curious feature of the distribution of the zoomorphic penannular brooch in Scotland is the fact that between the Orkneys and Traprain Law there is not a single recorded example.¹

So far, little advance has been made in regard to the terminals themselves. We have seen them degenerate from the pure doubled-back form into a comparatively simple type. We have lost sight of the original purpose of the doubled-back feature—namely, to prevent the pin from slipping off the hoop—but we have gained in so far as decoration is concerned. The product of the early second century (to which period the Okstrow brooch probably belongs) needed little modification to give a fresh impetus to the development of the zoomorphic terminal, and henceforth that development proceeds along more definite lines. The terminal of the Okstrow brooch needed but the eyes to produce the true zoomorphic motif, as exemplified in the later brooches, and, having achieved this, a certain enthusiasm was lent to rapid progression in design. Although there is a gap in the series once more, No. 7 of fig. 1 is not so very far behind No. 6.

In turning to a study of the penannular brooch from Longfaugh, Crichton, Midlothian² (fig. 1, No. 7), the great advance that has been made in technique is at once apparent. Not only does this brooch exhibit a high degree of refinement, but here, at last, we have the fully developed zoomorphic motif—head, ears, eyes, and snout being all carefully defined and formed. The ears, from being represented formerly by mere incisions, are now precisely defined, and a groove, extending the depth of the terminal, marks their position when viewed from the side. Eyes and snout have also their corresponding grooves extending the depth of the terminal; and we shall see later that it is from the development or degeneration of these three grooves that much of our information is obtained in regard to date and so forth. As yet, the snout is indicated by little more than an engraved line. The ribbing is now complete; not only has it been divided into three sections, but it has also become closely spaced. The division of the ribbing into three separate lengths was not the whim of an individual craftsman. Not only must the idea have been evolved slowly, but, once evolved, it was reproduced with considerable fidelity for a long period, especially in Ireland. In addition, it seemed part of the general scheme to divide up the divisions themselves into four segments. In the case of the Longfaugh brooch, the bottom division has been divided into six segments, but that is exceptional.

¹ There is, of course, the Covesea brooch (*Proc. Soc. Ant. Scot.*, vol. lxxv, p. 197), but it does not enter into this discussion, being of another type.

² *Proc. Soc. Ant. Scot.*, vol. ii, p. 237; vol. v, p. 188.

Another noteworthy point about this brooch is the development that has taken place in regard to the pin-head.¹ The marked difference between the well-evolved moulding on the pin-head of the present specimen and the tentative effort on the part of the maker of the Okstrow example is very striking, a further argument in favour of a very early date in the second century for the Okstrow brooch. The present form of pin-head is by no means final, of course, but development has been considerable, and that cannot happen in a short time. Yet the associated relics of the Longfagh brooch, which included a bronze patera² and a buckle,³ would seem to place it in about the middle of the second century.

With the foregoing details before us, we turn to a consideration of the next specimen in our typological series—a further example from Traprain Law⁴ (fig. 1, No. 8). The context in which this brooch was discovered—it came from the upper levels in the final excavations of 1923—would seem to contradict all our previous conception of date and development, since coins of the latter part of the fourth century came from this level.⁵ But we have only to recall for a moment some of the lessons already learnt in the course of this discussion. The third level at Traprain Law yielded both primitive and the well-developed forms;⁶ but that is not going to urge us to conclude that the period of manufacture of the early form must, of necessity, have been the same as that of the fully developed type. It would therefore seem, on the basis of these arguments, that the present specimen is another which has seen long service.

It is in a very poor state of preservation. In consequence, only very little remains of the ribbing (to the left of the left-hand terminal in fig. 1, No. 8). This ribbing probably extended round the hoop, and may have been divided up in the manner of the ribbing on the Longfagh brooch. The form of pin-head is now much more definite, and is well on the way to acquiring a beaded edge, so typical a feature of the later specimens. In regard to the terminals, it will be observed that several developments

¹ Like the terminals of the brooch, this pin-head could not have been evolved in a short time.

² *Proc. Soc. Ant. Scot.*, vol. lxii. p. 249: "The Longfagh patera belongs to that type which shows the evolution of the base rim, a new protective device. This evolution can be traced from small beginnings early in the second century. We have a thickening of the wall, designed to protect the most vulnerable part of the vessel, in this patera from Crichton on Dere Street. And we have it fully developed in a silver patera found at Backworth, Northumberland, with brooches and coins, the latest said to be of Antoninus Pius, A.D. 139." See also, *Ibid.*, vol. lxvi. p. 352.

³ The buckle found at Crichton has a parallel at Newstead (Jas. Curle, *Newstead*, pl. lxxvi., No. 1) where one was found in the upper levels of Pit II. Dr Curle is of the opinion that such buckles would not antedate the Antonine period.

⁴ *Proc. Soc. Ant. Scot.*, vol. lviii. p. 279.

⁵ The coins were a second brass of Constantius II. (A.D. 335-361) and a fourth brass of the latter part of the fourth century A.D., probably Valentinian II. or Theodosius I.

⁶ The brooches referred to are Nos. 3 and 5, fig. 1, and No. 6, fig. 2.

have taken place. The ears, instead of being carefully rounded as in the case of the Longfaugh specimen, are now once more marked off at the corners; and this method of representing the ears obtains, with very little variation, almost throughout the history of the series. What does vary from time to time is the groove which, we noticed, accompanied the ear down the side of the terminal. The angle of this groove alters with the development of the terminal, and therefore serves as a useful guide to date. Similar remarks apply to the eyes. In the present brooch from Traprain Law the grooves are still vertical, so that there is very little difference in date between this specimen and that from Longfaugh. Both brooches may have come from the same workshop, since they both exhibit a peculiarity that is to be found on no other brooches in the series.¹ That peculiarity takes the form of a medial line on each eye, which gives them a sort of lip-effect, which is more pronounced on the present brooch than on the Longfaugh specimen, where it seems to be in the nature of an experiment.

It will have been noticed that, in so far as the Okstrow and Longfaugh brooches are concerned, there is no stop to prevent the pin from slipping through the opening in the ring. The purpose of the doubled-back feature was to prevent that happening. This absence of any form of stop, or check, must have proved an inconvenience, so that now measures are being taken to make good the deficiency. The result, in the case of the present brooch from Traprain Law, is that, apart from being larger, the snout has had its tip raised—only slightly, it will be observed, but this new feature becomes more accentuated in the later specimens. The terminals have been enamelled: in the middle of each head is a "blob" of red enamel. This might be taken as an argument for a later date; but it must be remembered that the same site yielded, in the excavations of 1920, a zoomorphic pin with enamelled head, from the third level,² which, incidentally, would seem to be the correct context for the brooch. An early form of pin, with enamelled head, also came from Newstead³ (fig. 3, No. 1).

In turning to a consideration of the brooches figured in fig. 2, we note the almost complete absence of ribbing. This, in some ways, is significant, since brooches possessing a plain hoop tend to be not earlier than the third century in Scotland. An exception, however, is a brooch from Traprain Law (fig. 2, No. 6) which came from the third level, and can therefore be assigned to the second century.⁴ Also from the same level

¹ There is, of course, the brooch from Stratford-on-Avon, but it is outside our province.

² *Proc. Soc. Ant. Scot.*, vol. lv. p. 177, fig. 15, No. 7.

³ *Newstead*, pl. xcii., No. 11.

⁴ *Proc. Soc. Ant. Scot.*, vol. l. p. 101.

came a zoomorphic pin, almost identical in form (fig. 3, No. 5).¹ Both the pin and the brooch were therefore contemporary with one or two of the more ambitious examples of brooches lately studied. The brooch itself provides a problem which might have remained unsolved but for the technique employed in manufacture. The various features of the terminal have been formed by scoring rather than by moulding. The snout is no further developed than that of No. 8 of fig. 1, but curious results have been achieved by giving the brooch a narrow terminal, which, incidentally, is a strong argument for a second-century date, third-century terminals being considerably wider. This narrowness of terminal, coupled with the oblique angle at which the ears have been engraved, has given to the groove at the side of the terminal the appearance of being the arc of a circle. This is due to a miscalculation on the part of the craftsman, since the eyes are correct; and this error of judgment might have led us to assign to the brooch a third-century date but for the width of terminal, form of eyes and snout, and the fact that it was actually found in a second-century context. Finally, to add another peculiarity, both brooch and pin possess a medial line on their respective terminals.

A slight digression is caused here by the brooch from Barnton, Midlothian (fig. 2, No. 2). It has obviously been fashioned by some craftsman who, although acquainted with the essential features of the zoomorphic type, found that it had little appeal for him in its familiar form. Even the ribbing is there, but it has been relegated to the side of the hoop. The peculiarities of manufacture would seem to place the brooch in the late second or early third century: the terminals are small, and the ears are still vertically represented on the side of the terminal, but are now decorated with three vertical incised lines, executed probably at the same time as the so-called ribbing on the hoop. The treatment of head, eyes, and snout is peculiar. A deep groove has been cut down the middle of the head, and this might have been suggested by the medial line on No. 6. The snout has been treated in a similar fashion. The pin is a slovenly affair, and is possibly a later addition to the brooch. The grooves of the true barrel-headed pin are here indicated by no more than a couple of incised lines; and this, coupled with the narrowness of pin-head, is a true indication of decadence, and therefore the strongest argument in favour of the pin being a secondary affair.

There is yet another brooch from Traprain Law (fig. 2, No. 3) and it came from the second level.² The context in which it was found

¹ *Proc. Soc. Ant. Scot.*, vol. i, p. 102.

² *Ibid.*, vol. liv, p. 88.

suggested a fourth-century date, but it is a third-century brooch which, like so many others, has seen long service. It is obviously much later than any other brooches hitherto considered from this site, as we shall presently see. The pin-head is nearing the ultimate form, whilst the terminals show less tendency to experimentation in design. We observe how both ears and eyes have narrowed—a third-century tendency—whilst the angle of their side grooves has increased. It is curious to note, however, that when once the grooves pertaining to the ears leave the vertical, those of the eyes return to the vertical, after having been the first to leave that position. This has probably been done to balance the effect produced by the slanting side groove of the snout. Once the eye-groove attains the vertical it never leaves that position throughout the whole history of the series. The moulding of the snout is now more definite. Undoubtedly, the brooch belongs to the first half of the third century. Another specimen that is not so very far behind it is No. 4, fig. 2, which, unfortunately, bears no locality. Here we see how the eye-groove is about to return to the vertical, whilst the ear-groove is now more slanting. But the most noteworthy development is in regard to the snout; for it will have been noticed that the snouts of all the previous examples have had a smooth, rounded surface, whereas, in No. 4, a slight constriction is apparent on the snout towards the head. In addition to this important development, this is the first cast specimen to come under our notice.

The northernmost example in the present series of penannular brooches is that from Pinhoulland, Walls, Shetland (fig. 2, No. 5). It was found in a peat bank,¹ and is in rather a poor state of preservation. It is clear that this brooch belonged to a period when brooches of this type had heavier work to do,² for they are of far more robust construction than anything that has gone before. The pin-head is fast nearing its ultimate form; it has increased in width here in consequence of the additional strain put upon the pin. The heaviness of the terminals is another notable feature; but in spite of that fact, they are hand-wrought. We note the increase in the angle of the ear-groove on the side of the terminal, and the fact that the eye-groove has now attained the vertical; but of particular importance is the outcome of the slight constriction of the snout of No. 4, which has now become a definite medial ridge; and this medial ridge, once established, persists throughout the whole history of the series. In the Pinhoulland brooch the tip of the snout has been

¹ *Proc. Soc. Ant. Scot.*, vol. lxvi. p. 80.

² In some cases the pins are considerably arched, a condition brought about by the weight which they had to carry. The brooch thus seems to have become a pure article of utility.

raised a little more. This brooch would probably belong to the late third or early fourth century.

It is interesting to observe how all the features noted in the Pinhoulland brooch have been faithfully preserved in the next specimen, from the brooch of Aikerness, Evie, Orkney,¹ which has been cast, and was formerly gilt (fig. 2, No. 1). The hoop was cast in annular form, but was afterwards sawn through midway in the expansion representing the two terminals. The form of head, ears, and eyes is perhaps rather more definite than in the case of the previous specimen, but this would be due to the fact that all these several features have here been cast instead of being moulded by hand. The eyes, however, were subsequently improved by hand. The ridge of the snout, so pronounced in the Pinhoulland brooch, now possesses a somewhat rounded appearance, also due to the fact that it has been cast in a mould. The most marked development, however, is in the form of pin-head, which has now attained its ultimate form. It is pleasantly symmetrical; its grooves are well defined; and the central ridge, from being rounded, is now flat. Actually, this barrel-headed form of pin-head was quite simply produced; the pin was cast with a plain circular pin-head, after which a couple of grooves were filed to the recognised form. Hardly a more artistic form of pin-head could be imagined, and during the remainder of the history of the series, especially in Ireland, it was a form that was held in particular esteem by the Celts themselves. The Aikerness brooch is labelled: "found in last year's scree," so that nothing is added to our knowledge of the history of the type in Orkney. On typological grounds, however, it may be safely assigned to the fourth century.

Thus, rather abruptly, ends our story in so far as Scotland is concerned. As already pointed out, this discussion is but the prologue to the greater history of the zoomorphic penannular brooch, which history the author hopes to relate elsewhere in the near future.

Finally, especial thanks are due to Dr J. Graham Callander, Director of the National Museum of Antiquities of Scotland, who not only suggested the subject of this paper, but gave the author every facility for studying the brooches contained in the Museum.

¹ I am indebted to Mr J. S. Richardson for permission to publish this brooch ahead of his monograph.

V.

SCULPTURED STONES OF OLD LUCE CHURCH, WIGTOWN-SHIRE. BY THE REV. R. S. G. ANDERSON, B.D., F.S.A. SCOT.

Old Luce Church stands on the hill-top immediately to the north of the main street of the village of Glenluce. The present building dates from 1814,¹ but is on the site of an older church which is said to have been erected in 1637. Traces of the latter are yet to be found; the most notable being an arched doorway, now built up, with fluted jambs and with drip course, which is hidden in a modern furnace-shed at the east end of the church. During the Episcopal supremacy the church may have been dedicated to St John, as the narrow street that runs up by the side of the old burial-ground on the east is named St John Street; but though the claim is made, there seems no record or tradition to substantiate it. This street leads up also to an old well, which still sends out its water from under an old stone coping, and which was in all likelihood the holy well of an early chapel on the church site near at hand. To the west of the present church is rising ground called Vicars-hill, from its being the site of the vicarage in episcopal times.

In pre-Reformation days the clachan by the church was not called Glenluce; the clachan of Glenluce was then in the Glen nearby the Mill.² The cluster of houses about the church site was known as Ballin-clauch,³ which Professor W. J. Watson considers stands for Baile nan Clach (homestead of the stones), which suggests that the place was stony or had a number of big stones lying about.

The first church or chapel on the present site of Old Luce Church takes us back far farther than the post-Reformation building; farther even than the Abbey itself, which was founded in 1190. Sculptured crosses were standing here in the tenth century, and even then the history of the local church may not have been young. There is no traditional dedication, or any sign of the early Ninianic mission; but the origin of the local church might possibly date back to the Anglian bishopric at Whithorn from A.D. 730 to 790.

A few weeks ago, a fragment of a crosshead was found at Kilnecroft,

¹ *New Statistical Account*: Glenluce.

² Charter by the Commendator and Monks of Glenluce to the Earl of Cassilis, 1572; quoted by Rusk: *History of Parish and Abbey of Glenluce*, p. 137.

³ *Place Names of Galloway*, Sir Herbert Maxwell.

that lies to the north of Old Luce Church. This croft once reached down practically to the churchyard wall, though it is now separated by the new cemetery carved from its own lands, and by a railway cutting. The proximity of the croft and the graveyard to each other in the dyke-building era explains how the relic could easily have reached the site of its discovery, and how also it came to be broken across, as it has been, to fit its niche in the dyke. Mr Hugh G. Clark, the tenant, found the fragment in the drystone dyke that separates the two fields of the holding, at a point about 200 yards due north of the church. Though diligent search was made, no further relics were found.

The stone is of the local greywacke, and measures $16\frac{1}{2}$ inches hori-



Fig. 1. Cross at Glenluce. (Face.)

zontally, $8\frac{3}{4}$ inches vertically, and is $3\frac{1}{2}$ inches thick. There has been a roughly cut disc-head, but nothing remains of the shaft to tell how the cross was finished. Enough is left of the design to show that it has been of the distinctive Whithorn type; and that the same design has been cut on both faces, although that on the front now seems better wrought than that on the back. But this may be the result of weathering. On the front, the fragment preserves entire on the left the boss and ring with a broad band attachment to the plain cord that frames the stone (fig. 1). The right-hand boss and ring and border are entirely flaked off. Two inches or so of the top of the central ring remains. Fortunately one arm of the cross is practically complete, showing it to have been fan-shaped, with inward curving sides with a marginal moulding, graceful in its curves, and having the wider and more unusual entrances between the arms. It has been an equal-armed cross with the usual five rings, of the Whithorn type. The reverse shows only

portions of three separate rings and bosses; and little more than one arm, all rudely cut, and showing little skill or taste (fig. 2). The simplicity and feeling and good execution in the front would lead us to place the stone at a period when the workman felt that the possibilities of the simple lines of this style were not yet exhausted, and considerably before the ornamented and more florid type that date about A.D. 1000¹ had come into vogue.

The *Inventory of Ancient Monuments in Galloway*² has the following note: "Beside the door of the Chapter House (of Glenluce Abbey) lies a slab of yellow sandstone, . . . on which is incised an equal-armed cross, with the arms expanded and squared, and the angles at the intersections rounded. It was discovered within the Chapter House in 1884."



Fig. 2. Cross at Glenluce. (Back.)

This cross is older than the Abbey, and possibly was brought here from the Old Luce burial-ground for preservation, or amongst other stones to be used when changes were being made in the Chapter House. There is a local tradition, however, of a chapel having once stood between the Abbey and the Back o' the Wa' farm, where there is now a group of trees and faint traces of building, turf-covered. The cross might have come from a burial-ground there, though no tradition or record exists.

The cross-slab as it is to-day is about 19 inches square, but on the left a section of the side has been cut off taking away part of the arm, whilst at the foot, from the same cause, part of the lower arm is also missing (fig. 3). As it remains now, the sculpture measures 17 inches long by 18 inches broad, and when whole must have been about 22 inches by 21 inches. The arm at the top is 13 inches long, and the right arm 9½ inches.

¹ *Official Guide to Whithorn Priory*, p. 15.

² *Wigtownshire: Old Luce*, No. 299, p. 108.

The formation of the cross is curious and interesting. Judging by the details, the rustic sculptor was well acquainted with both the Whithorn type with its rings, and the Northumbrian free-armed head. In combining the two he has produced on his slab a hammer-headed cross.



Fig. 3. Cross-slab at Glenluce Abbey.

Whether this is evolution or imitation it is difficult to say, but appearances are in favour of the former. The cross seems to be early. There is nothing to suggest that the sculptor was acquainted with the uncouth heaviness of design that marked the developed hammer-head, whether free-armed or on a slab.¹ The circles are made complete, whereas he could have saved himself work by leaving the part at the armhole uncut, and at the same time have made it more like the more developed and more fashionable of late examples, such as that of Kilmore Chapel, Kirkcolum.² There is no suggestion either that the Whithorn type had yet reached its distinctive shape. There is no disc-head, and only four rings are used; and the armholes are not yet opened. It seems as if both the Whithorn type and the hammer-head were still evolving, and had not reached their peak, or the fact would have been reflected more clearly in this slab. The sculptor was evidently a rural workman, but he was not a blunderer. He shows the same ingenuity in simplicity and economy in means as the workman who wrought the Brighthouse cross³ of the Whithorn type, achieving it by five circles, two lines, and the stone's edges. This Old Luce sculptor accomplishes his end by four circles and four bent or squared lines, and does so not ungracefully. The cross is in fact more graceful than the late hammer-heads. Though of the rude monument class, such as we might look for in the burial-ground of a simple clachan, and only one example, we may be justified in our inference that it belongs to an early date, probably not later than about the middle of the tenth century.

Another cross, in addition to the above mentioned, was found in Glenluce Abbey, but unfortunately has disappeared. In the *Proceedings*, vol. xxxiii. p. 172, Rev. George Wilson reported: "When some repairs were being made a few years ago (before 1899) there was found above the

¹ Cf. *Northumbrian Crosses*, W. G. Collingwood, figs. 112, 113.

² *Proc. Soc. Ant. Scot.*, vol. lvii, p. 17.

³ *Ibid.*, p. 113.

Chapter House, Glenluce Abbey, the upper part of a cross which had been broken across, and used in a newer part of the building." This is evidently quite a different cross from that found in the Chapter House. "It is an ice-polished grey Silurian sandstone, with an incised cross in outline, and two holes cut through." It has evidently been more of the Whithorn type than the previous one.

In the east wall of the north transept of Old Luce Church, to the right of the window at the head of the outside stair, with the rain-spout coming down between them, are the fragments of two early crosses. A third is to be seen on the north wall of the east extension of the church, close to the left of the doorway on the same landing.¹

This last is the easiest to decipher. On it still remains one complete arm of the expanding type, incised; the inter-arm space being parabolic in shape, and containing a triangular key-pattern in relief. The cross is contained by two incised circles, having a ring in relief between them; the inner uniting the details of the cross. The diameter of cross and rings is about 1 foot. On the margin of the slab is an incised border of key pattern about 4 inches deep, consisting of two facing rectangular turns alternating.

The fragment nearest the window on the transept, shows a portion of an incised cross evidently of a similar pattern to the above. The difference between the fragments lies in this one having a triangular corner space filled by two strands of cord that form a knot. None of the rest of the border remains to show any further design. An ornamented border round the head appears in Whithorn itself in a ring of pellets, about A.D. 1000.²

The third fragment from being rather deeply inset in the wall, and coated thickly with whitewash, is difficult to decipher. Most probably it is part of a cross-slab, but it is impossible to say whether the arms were connected by a ring. The arms are of the expanding type, and are in relief, but are hollowed within, each holding a triquetra in relief. At the crossing, in the centre, there is a small circle with boss. A stone somewhat similarly designed is found at Whithorn.³ It has the triquetra on the arms, but the expanding arms are incurved, and the inter-arm spaces are circles with narrow entrances—more in the orthodox Whithorn manner. The *Official Guide* places it in the eleventh century,⁴ and as one of the latest of the disc-faced school. So far as the meagre details allow a verdict, the triquetra being an important witness, the

¹ *Proc. Soc. Ant. Scot.*, vol. xlv. p. 354.

² *Official Guide to Whithorn Priory*, op. cit., fig. 33, p. 22; p. 15.

³ *Ibid.*, fig. 35, p. 22. *Early Christian Monuments*, No. 528, p. 492.

⁴ *Official Guide to Whithorn Priory*, p. 15.

Old Luce cross is doubtless as late as the Whithorn fragment. The other two crosses of this little group, with their modifications and divergences from the type, suggesting foreign influences, may safely be relegated to the eleventh century also.

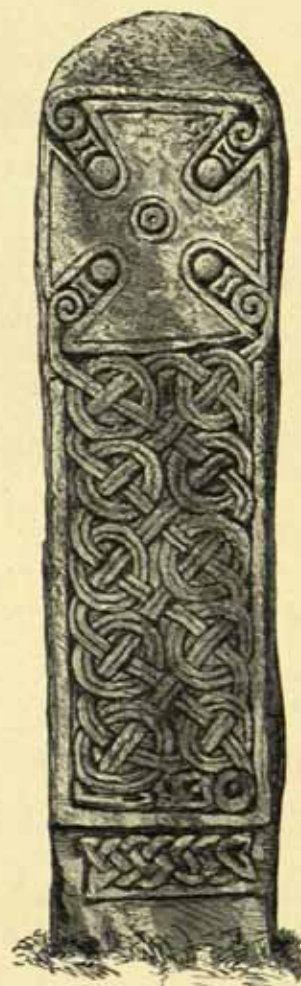


Fig. 4.

cross-shaft, No. 25, in the *Official Guide to Whithorn Priory*, which is classed there as one of the Master's later efforts.³ The expanding arms and the bosses are also familiar details of the old type, and the oval head containing these has in it the recollection of the disc. As we

The most complete of the early crosses connected with Old Luce Church is a standing slab, sculptured with the cross *paltée*, surmounting a long panel containing two interlaced double-cords, above a separate small horizontal panel with a four-cord plait, which is now preserved in the National Museum of Antiquities (fig. 4). The cross is 5 feet in height, 1 foot 3½ inches in breadth, and 5 inches in thickness and was found in the graveyard.¹ The *Official Guide to Whithorn Priory* says, with reference to it: "With the Scottish type illustrated at Glenluce and Minnigaff begins a new phase of art, by this time we have to deal no longer with Whithorn and its old tradition. Galloway has become decentralised."² This Old Luce cross, however, though it has lost much of its resemblance to its ancestral type, has still sufficient remaining to show its origin and to claim kinship. The design in the long panel is of two interlacing strands of double-beaded cord, crossing one another in the twisted rings and central intervals between these; the two ends of each strand terminating in spirals, the spirals of one strand ending in the lower inter-arm spaces of the cross, and those of the other tucked away in the right-hand corner at the foot of the panel. Apart probably from the spiral terminations, and from the corresponding strands in the two stones being in the reverse position, over and under, this pattern is exactly the same as that on the back of the

¹ *Inventory for Wigloenshire*, No. 369, p. 127.

² *Official Guide to Whithorn Priory*, p. 23.

³ *Ibid.*, fig. 25, back, p. 19; p. 15.

have seen already, overhead ornament was also a feature in late days. Repetition, re-arrangement, and modifications, without any signs of fresh inspiration, were signs that the Whithorn type had exhausted itself, and the old tradition was passing away. This cross may belong to about the middle of the eleventh century. There is as yet no sign of the changes and new ideas that we might expect to precede as well as follow the coming of the Normans towards the close of the century.

Rev. George Wilson has the following note in his paper on the Antiquities of Glenluce:¹ "Glenluce was a burgh of barony, and in the upper storey of the old gaol . . . I often saw a sculptured slab built in on edge over the fireplace. It was much defaced, but near the right hand it bore the figure of a stag running, with its tail turned into a leafy branch. At that time I knew nothing of the zoomorphic ornamentation of our sculptured stones; but my recollection of it is distinct. When this building was being altered for the County Police I was from home, and found this slab had been broken up by the masons." This type of cross-slab, with foliaceous ornamentation, was a prevailing one in West Highland monuments from the fifteenth century to the Reformation.² The intimate relations between the Western Islands and Galloway for centuries make it no marvel to find an example here.

¹ *Proc. Soc. Ant. Scot.*, vol. xxxiii. p. 173.

² *Early Christian Monuments*, pt. 1, p. 61.

VI.

NOTE ON THE ANTONINE WALL AND DITCH NEAR BONNYBRIDGE. By SAMUEL SMITH, CORRESPONDING MEMBER.

In Bonnybridge district, as too often elsewhere, the remains of the Antonine Wall and Ditch have in some parts been entirely effaced as a result of agricultural and other industrial operations. In the sector extending from the stackyard at Broomhill farm eastward to the L. M. & S. Railway, the present surface shows little trace of either Wall or Ditch. But, in 1880, R. Gillespie, who at that time published a revised edition of Nimmo's *History of Stirlingshire*, in describing the course of the Wall, said of this part: "the ditch appears very prominent, with the vallum and military way again visible."¹ However, before the close of the century, the officers of the Ordnance Survey Department, engaged in a survey of the whole line, were, in this sector, only able to map the Ditch in the fields on the east side of the public road which intersects the Limes near Broomhill: superficial traces of the remains (upon which they were solely dependent) had been absent in the field on the west side of the road and a survey thereby made impracticable. Thus, a gap was left in their marking. Later, in the course of his long and devoted investigation of the remains, Sir George Macdonald had detected a hollow in the sloping ground on the west side of Broomhill garden, and, having identified this as representing the Ditch, connected it, in his recently published map,² with the Ordnance Survey markings on the east side of the road.

An opportunity to verify the position of the Ditch in the field on the west side of the road occurred during the present year when foundation trenches for five blocks of new houses, erected by the Stirling County Council, were being dug. Where these crossed the Ditch, the builder had difficulty in securing a firm foundation. The trenches revealed that at some time the Ditch had been filled with ashes,³ 5 feet deep in the centre, and a layer of soil spread over these for tillage. Although in some parts the trenches were cut to a depth of over 7 feet, the forced soil in the Ditch still seemed unsatisfactory as a foundation bed and it was

¹ P. 37.² *The Roman Wall in Scotland*, 2nd ed., pl. xix C.³ Mr Thos. Johnston, Standalone, Falkirk, who attended school at Bonnybridge from 1881 to 1887, remembers watching a great hollow in those fields being filled with ashes from the paper-mill which at that time flourished in the vicinity.

ultimately found necessary to reinforce the concrete foundations with iron rods.

The plan (fig. 1) shows the position of the Ditch where it is crossed by the row of houses. It turned out that the line assigned for the Ditch by

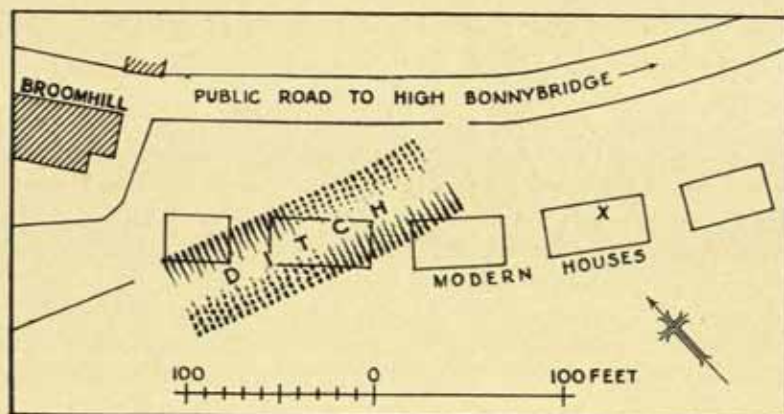


Fig. 1. Antonine Ditch near Bonnybridge—Plan.

Sir George Macdonald was correct. It will be seen that the three northerly blocks are all more or less over the Ditch. In the fourth block, where X is inserted in the plan, a portion of the stone base of the Rampart was exposed; but unfortunately both of the kerbs, as well as almost the whole of the stones between them had been dislodged by the plough. The precise position of the Rampart was, therefore, unobtainable.

I am indebted to Mr C. S. T. Calder, who has reproduced the drawing, and to the Rev. Thos. Miller, who drew my attention to the excavations and referred me to Mr Johnston for information regarding the filling of the Ditch.

MONDAY, 13th January 1936.

SIR GEORGE MACDONALD, K.C.B.,
President, in the Chair.

An Extraordinary General Meeting was held previous to the Ordinary Meeting, at which a new Law of the Society, as under, was passed unanimously. By a subsequent resolution it was agreed that this new Law should be Law 21, and that the present Law 21 should become Law 22.

Unless special arrangements to the contrary have been made, copyright of *The Proceedings* and of all papers printed therein, as well as of all illustrations, shall belong to the Society. This provision shall not apply to illustrations made from blocks borrowed from outside sources.

A Ballot having been taken, the following were elected Fellows:—

E. ALLAN, F.R.C.S.E., West View, Elgin.

Sir IAIN COLQUHOUN of Luss, Bart., Rossdhu, Luss, Dunbartonshire.

Rev. JOHN L. DINWIDDIE, M.A., D.D., The Manse, Ruthwell, Dumfries.

His Honour The Deemster R. D. FARRANT, 4 Albert Terrace, Douglas, Isle of Man.

ALEXANDER M. FINLAYSON, 31 Brown Place, Wick.

DUNCAN M'NAUGHTON, M.A., 4 Forth Crescent, Stirling.

ARTHUR WALKER RUSSELL, M.A., W.S., 25 Hope Terrace, Edinburgh, 10.

JOHN FREDERICK SMITH (Chief Librarian, Liverpool Public Libraries), 103 Brodie Avenue, Liverpool, 18.

DAVID SWAN WALLACE, W.S., 6 Eton Terrace, Edinburgh, 4.

There was exhibited by Theodora, Lady Forbes of Newe, a fourteenth-century talismanic Brooch of Gold, from the Doune of Invernochty, Aberdeenshire. (See subsequent note by W. Douglas Simpson, M.A., D.Litt.)

The following Donations to the Museum were intimated, and thanks voted to the Donors:—

- (1) By ARTHUR BASIL SIMPSON, West Close, Lockeridge, near Marlborough, grandson of the finder.

Massive Stone Axe-hammer, measuring $10\frac{3}{4}$ inches by $4\frac{5}{8}$ inches by

3 inches, found in 1878 by Mr Thomas Nelson of Friars Carse, Dumfriesshire, in a loch on his property there.

(2) By GEORGE VEITCH, F.S.A.Scot.

Quaich of Laburnum Wood, with two lugs, which belonged to Rob Donn, the Gaelic bard, measuring $4\frac{3}{8}$ inches in diameter and 2 inches in height. The staves are bound by a silver band near the centre, and the foot by another. On the front is the inscription—1714 “Cuach Roib Dhuinn Bard dutcha Mhic Aoidh” 1778.

(3) By The Right Hon. LORD CLYDE, LL.D., F.S.A.Scot.

Covenanters' Flag of white Linen, measuring 6 feet in width and 4 feet $9\frac{3}{4}$ inches in height, probably belonging to the Post-Revolution period, beginning of eighteenth century. In the centre is a Scottish thistle in green and red; above, on left, is a flaming sword, and on right, IEHOVAH NISSI, below, FOR GOD AND/ THE · COVENANTED · WORK · OF REFORMATION, all painted in red. Round three sides is a border of blue silk edged with a yellow silk fringe, probably added at a later date.

(4) By ERNEST W. SWAN, Newbrough Park, Fourstone, Northumberland.

Silver Medal of the Royal Society, Edinburgh, of oval shape, pierced at the top for suspension. *obv.* ROYAL/ SOCIETY/ EDINBURGH/ INSTITUTED/ 1783; *rev.* DR REID CLANNY/ 1825.

(5) By THOMAS TROTTER, Main Street, Gifford, the finder, through Mrs Broun-Lindsay, F.S.A.Scot.

Whetstone of rectangular section, measuring $3\frac{9}{16}$ inches by $\frac{3}{4}$ inch by $\frac{11}{32}$ inch, perforated at one end which takes the form of an obtuse angle. Found at the side of the Donolly Reservoir, near Garvald, East Lothian.

(6) By Mrs BROUN LINDSAY, F.S.A.Scot.

Wooden Spurtle with a bulbous end, measuring $7\frac{3}{8}$ inches in length, from Perthshire.

The following Purchases for the Museum were intimated:—

“Napier's Box” of tables for mathematical calculations. Inside the lid of the box is a table of figures written on paper, and fitted within are

six transverse cylinders covered with paper, also bearing figures, which are operated by small carved handles projecting through the front of the box. The figures on the cylinders correspond with those on the four sides of a set of "Napier's Rods" of wood, and of another "Napier's Bones" of ivory in the Museum. The box measures $5\frac{5}{8}$ inches by $3\frac{1}{8}$ inches by $1\frac{1}{8}$ inch. The family tradition is that the relic was given to Bailie John Gibb of Stirling, in or about 1732, by a Napier who belonged to the Merchiston family, and that it has been handed down in the Gibb family ever since.

Facsimile of a Silver Fibula found in the Broch of Carn Liath, Dunrobin, Sutherland. (See *Arch. Scot.*, vol. v. p. 102, and *Proceedings*, vol. lxvi. p. 337, fig. 36, Nos. 5 and 6.)

The following Donations to the Library were intimated, and thanks voted to the Donors:—

(1) By HIS MAJESTY'S GOVERNMENT.

Calendar of the Fine Rolls. Vol. xv. Henry VI.—A.D. 1422–1430. London, 1935.

(2) By W. DUGALD MACCOLL, F.S.A.Scot.

Land Utilisation Map of Scotland based on the "One-Inch" Ordnance Map. Sheet 4—South Mainland (Shetland Islands). Sheet 53—Sound of Mull. Sheet 59—Iona and Colonsay. Sheet 60—North Jura and Firth of Lorne. Sheet 68—Firth of Forth.

(3) By Professor Dr ERNST FABRICUS, H.F.S.A.Scot.

Der Obergermanisch-Raetische Limes des Roemerreiches. Lieferung lii. Berlin and Leipzig, 1935.

(4) By Professor H. Dragendorff, H.F.S.A.Scot., the Author.

Darstellungen aus der augusteischen Geschichte auf arretinischen Kelchen. Reprint from *Germania*, 19. Heft 4. Berlin, 1935.

(5) By Sir GEORGE MACDONALD, K.C.B., LL.D., President.

Gerard Baldwin Brown, 1849–1932. By the donor. (From *The Proceedings of the British Academy*, vol. xxi.)

Proceedings of the Devon Archæological Exploration Society, 1934. Vol. ii., part 2.

Medicine in Early Greek Mythology. By J. D. Gilruth, M.D., F.R.C.P. Edin. (From *The Edinburgh Medical Journal*, vol. xlii. No. 12. 1935.)

- (6) By Rev. ARCHIBALD MACKENZIE, M.A., B.D., F.S.A.Scot., the Author.

An Ancient Church. The Pre-Reformation Church of St John the Baptist at Ayr. Ayr, 1935.

- (7) By Professor V. GORDON CHILDE, B.Litt., F.S.A.Scot.

Bulletin. Historical Museum, Moscow. Otchet. Imp. Rossiyskago Istoricheskago Muzeya. v. Moskv'e. 1906-1911 and 1915.

Iranian Miniatures. Huzalyan & Dyakonov.

Sassanid Metal Work. By J. Orbeli & C. Trever. Moscow, 1935.

- (8) By JOHN FRASER, Corresponding Member.

The Life of Major-General Sir Robert Murdoch Smith, K.C.M.G., Royal Engineers. By his son-in-law, William Kirk Dickson. Edinburgh and London, 1901.

- (9) By THOMAS SHEPPARD, M.Sc., F.S.A.Scot.

Hall Museum Publications, Nos. 185-187.

- (10) By THE RUSSELL-COTES ART GALLERY AND MUSEUM.

Bulletin. Vol. xiv. No. 4.

- (11) By THE CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

Record of Fellows and Scholars, 1903-1935. Edinburgh, 1935.

- (12) By DONALD S. MACDONALD, W.S., F.S.A.Scot.

The Grange of St Giles, The Bass: and the other Baronial Homes of the Dick-Lauder Family. By Mrs J. Stewart Smith. Edinburgh, 1898.

- (13) By THE UNIVERSITY OF ABERDEEN.

The Teaching of Chemistry in the Universities of Aberdeen. By Alexander Findlay. Aberdeen, 1935. Aberdeen University Studies, No. 112.

- (14) By THE UNIVERSITY OF ST ANDREWS.

The Apostolic Camera and Scottish Benefices, 1418-1488. By Annie I. Cameron, M.A., Ph.D., D.Litt. St Andrews University Publications, No. XXXV. Oxford, 1934.

(15) By JAMES DAVIDSON, F.S.A.Scot.

Primitive Beliefs in the North-East of Scotland. By J. M. McPherson, B.D. London, 1929.

(16) By WILLOUGHBY GARDNER, D.Sc., F.S.A.Scot., the Author.

The Native Hill-Forts in North Wales, and their Defences.

Craig Gwrtheyrn Hill-Fort, Llanfihangel Ar Arth, Caermarthenshire.

Ffridd Faldwyn Hill-Fort, near Montgomery.

Caer y Twr, a Hill-Fort on Holy Island, Anglesey.

The Bulwarks, a Promontory Fort at Porthkerry, Glamorganshire.

Reprints from *Archæologia Cambrensis*, December 1926, June 1932, December 1932, June 1934, June 1935.

(17) By THE MANX MUSEUM.

The Journal. Vol. iii. No. 45. December, 1935.

(18) By A. J. H. EDWARDS, F.S.A.Scot.

Bristol Museum and Art Gallery—"What to See" Guide. Sixth edition. Bristol, 1930.

Newport (Mon.) Museum and Art Gallery. "What to See" Guide. 1927.

Guide to the Chesters Museum. By R. G. Collingwood, M.A., F.S.A. Newcastle-upon-Tyne, 1932.

(19) By WILLIAM E. F. MACMILLAN, F.S.A.Scot.

Prehistoric Man in Ireland. By Cecil P. Martin, M.B., M.Sc. London, 1935.

The following Purchases for the Library were intimated:—

English Glass. By W. A. Thorpe. London, 1935.

Acta Archæologica. Vol. vi. Fasc. 1-2. Copenhagen, 1935.

The Gallovidian Annual, 1935-1936. Dumfries, 1935.

The following Communications were read:—

I.

ACCOUNT OF THE EXCAVATION OF AN IRON SMELTERY,
AND OF AN ASSOCIATED DWELLING AND TUMULI AT
WILTROW IN THE PARISH OF DUNROSSNESS, SHET-
LAND. BY ALEX. O. CURLE, C.V.O., LL.D., F.S.A.Scot.,
F.S.A.

The site of the group of prehistoric remains to be treated of in this communication lies in an area of enclosed moorland covered with stunted heather, some 200 yards to the north-east of Mr Bairnson's croft at Wiltrow, and as the crow flies, some three miles north of the mansion-house of Sumburgh. A small sheet of water, the Loch of Browbreck, lies a short distance to the north-west.

My attention was drawn to this site a few years ago by Mr Robert Bairnson, the son of the crofter on whose croft the ruins were situated and one of my most enthusiastic workmen at Jarlshof, who in the course of a slight excavation had found specimens of iron slag, some stone implements, and a few sherds of pottery, but it was not until this last summer that I found time and opportunity to make a systematic exploration of the site.

The remains of the smeltery and of the dwelling, which some fifty or sixty years ago had served as shelters for stock, had later on suffered seriously at the hands of the builders of adjacent stone dykes, and both structures had been reduced to little more than their foundations, barely rising above the general level of the moorland, and covered with heather.

The sketch plan (fig. 1) shows the group. The smeltery, which lay nearest to the croft houses, had suffered most, and no part of the external face of the wall remained. As far as ascertainable the building had been oval, or elliptical, with its main axis approximately east and west.

On the northern side of the structure three furnaces had been formed in a very simple manner, by directing a draft along a flue to a throttle formed by converging stones and covered over by a slab, behind which glowed a fire of peat, for the reduction of the bog ore. The flues of these furnaces, shown on the plan, were operated from the north, east, and west respectively (fig. 2).

The flue from the north was in the best state of preservation, and from

the orifice, as it remained, to the throttle it measured 4 feet. It was a narrow channel lined with stones on either side, and measuring some 5 to 6

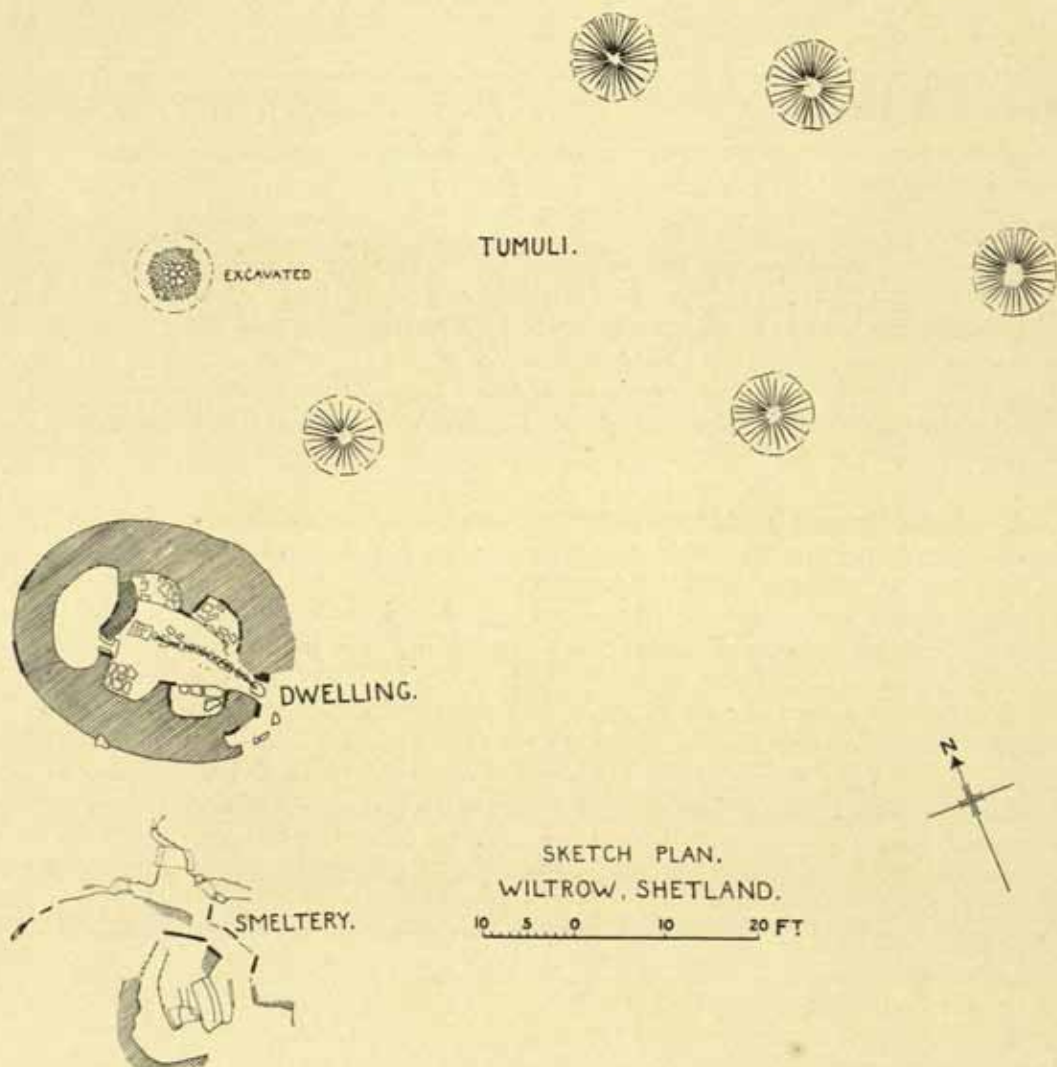


Fig. 1. Plan of Smeltery, Dwelling, and Tumuli at Wiltrow, Shetland.

inches across. At 1 foot 9 inches from the outer end a flat triangular stone, 8 inches across and 2 inches thick, fitted into a slot on either side, and had evidently been used as a shutter to put the flue out of action.

The lintel which covered the throttle was from 4 to 5 inches above the bottom of the flue on the outside, and a couple of inches more on the inside. On the site of the fire there was much scoria, thin flake-like pieces of iron, and peat ash.

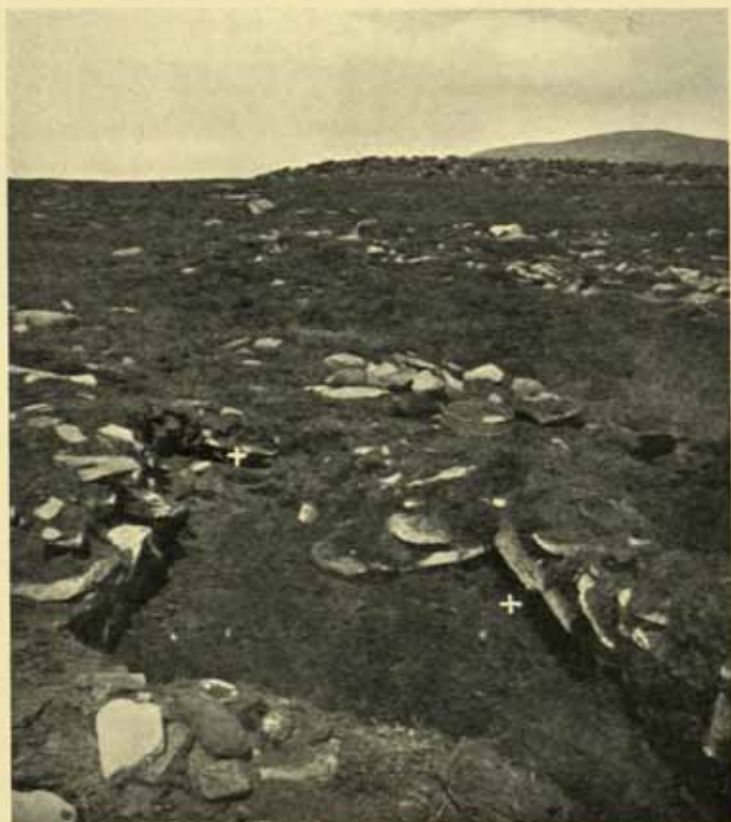


Fig. 2. The North and East Furnaces indicated by crosses.

The two other flues were very similar, but there were more remains of slag and metal beneath the lintel of the east furnace than beneath either of the others.

Adjacent to the furnaces, and to some extent mingling with the slag, etc., were numerous pieces of pottery, on some of which there was an encrustation of iron, also rude stone implements on the faces of some of which there was also traces of iron, and many scrapers made of quartz. There was also found a curious spout-like object of sandstone (fig. 3)



Fig. 3. Spout-like Object of Sandstone.

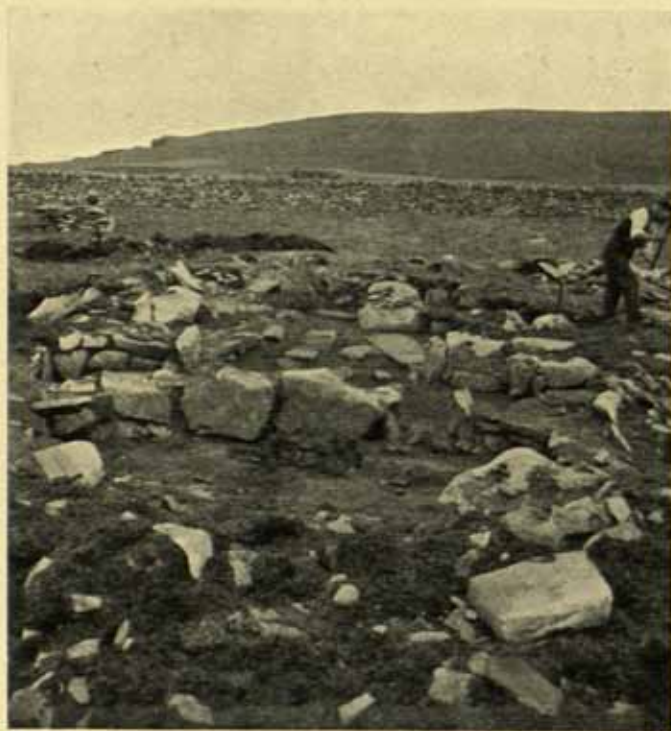


Fig. 4. Back Chamber of Dwelling, looking outwards.

10 inches in length, broken and incomplete, on both sides of which there were slight encrustations of iron. The stone implements were very similar to those found at Jarlshof, and included spatulate tools and rounded clubs.

Behind these flues was a small chamber measuring some 7 feet 6 inches by 6 feet, the floor of which was covered with peat ash. An opening in the south wall gave access to a passage which led into the remains of

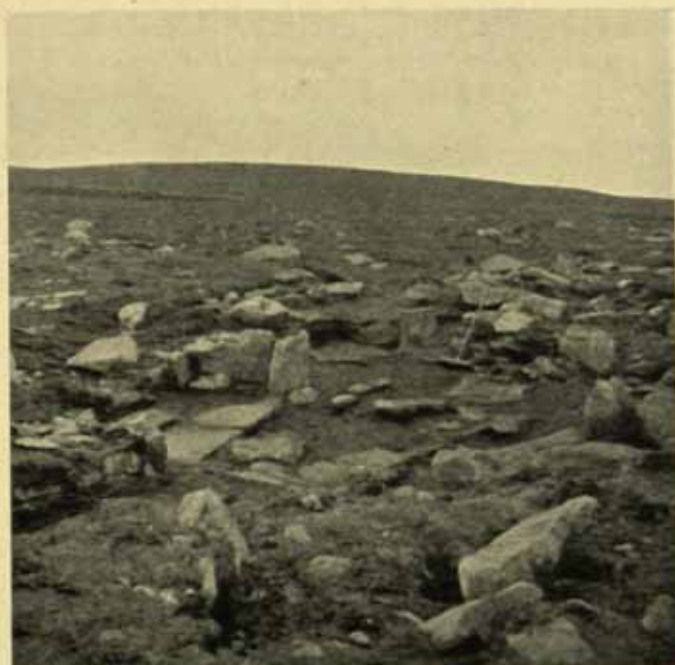


Fig. 5. Lateral Chambers with Paved Floors on Left on entering.

another chamber of irregular shape, on the west side of which there remained a short length of low walling. Within this chamber was found a considerable quantity of bog ore, the raw material for the furnaces. On the north side of it was a lintel covering the end of another flue, which ran in a northerly direction for a short distance, beyond which it was not traceable.

Some 10 feet to the north of the northmost furnace was the dwelling—a circular building, as previously stated reduced almost to ground level by pillage of its material. Though the outline of the outer wall was ascertainable with comparative certainty, only a few of the actual large

blocks which had marked it remained. It had been a structure elliptical on plan, lying with its main axis from north-west to south-east, having the entrance from the latter direction, and measuring 31 feet by 25 feet over all across the centre. Unfortunately at the outer end of the entrance passage there was so much dilapidation of what appeared to be a secondary building, that its original features were unascertainable. The passage had been about 2 feet 4 inches wide, and had extended through the wall



Fig. 6. Lateral Chamber on Right on entering, and Drain Covers in Front.

for some 7 to 8 feet with an elongated chamber on the left on entering. The original plan of the dwelling was identical with that employed in the earlier dwellings at Jarlshof, and consisted of a central court with a long transverse chamber across the inner end, and two small recessed chambers on either side. The length of the interior from front to back was some 21 feet, and the greatest width from the backs of the opposite chambers 13 feet.

The inner chamber measured 12 feet in length and some 6 feet in greatest width. Originally it had been open to the court, but later a wall had been constructed between the opposite partition walls which

formed the inner ends of the adjacent lateral chambers, with an entrance through it at the south end. The floor of this chamber was covered with numerous flat stones which suggested the ruin of a beehive roof. There was no indication in it of a hearth.

Immediately in front of the secondary cross-wall in the court lay a large rectangular flagstone, the fire-fractured surface of which showed that it had been the hearth.

The lateral chambers, or cells, each measuring some 6 feet in length

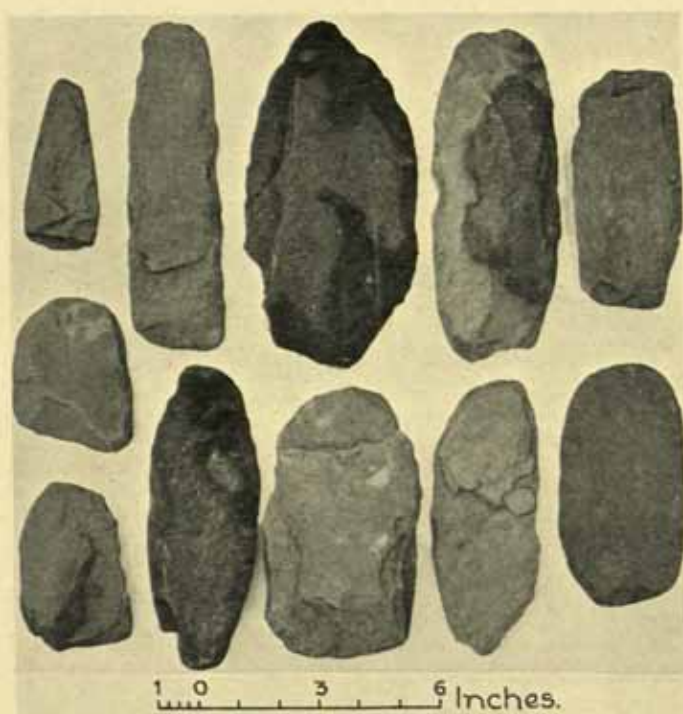


Fig. 7. Stone Implements found in the Dwelling.

by 3 feet in depth, were rounded at the back, and paved on the floor (fig. 5). The floor of the first chamber on the right in entering was completed with a kerb some 7 inches above the level of the court (fig. 6), while the floor of the chamber opposite was also raised. There was evidence of fires having been burned in front of each of these foremost chambers.

From a point adjacent to the front of the hearth there ran a drain to the entrance, measuring some 5 inches across by $2\frac{1}{2}$ inches deep, with a

semicircular section, and covered with flags (fig. 6). Such a drain could only have been intended to carry away surface water, and it is obvious therefore that the court was open to the air, while the chambers only were roofed. We may assume therefore that a similar arrangement characterised the buildings on the same plan at Jarlshof, though no drains were

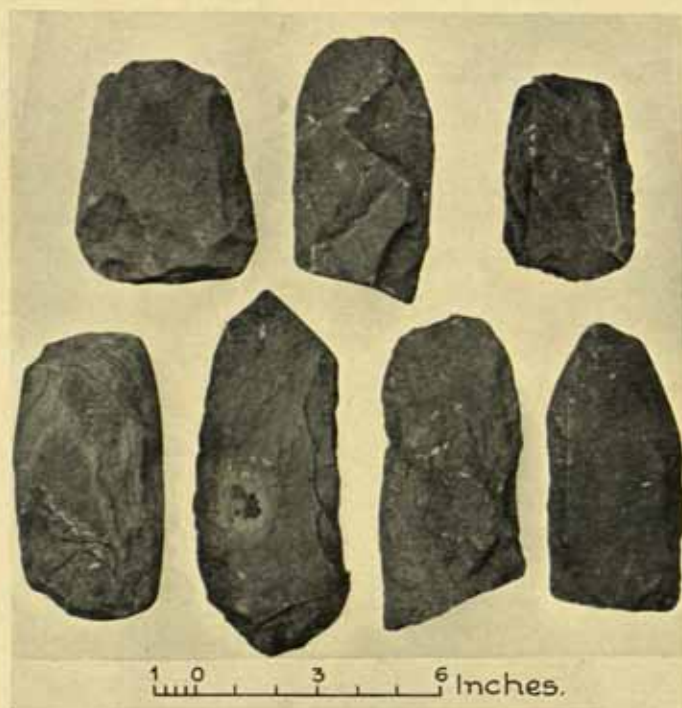


Fig. 8. Stone Implements found in the Dwelling.

found in these. As the floors on that site were of sand they were probably not required.

In clearing out this building there were found over 50 rude stone implements, complete and broken, representing the numerous types, excepting those of slate, found in the earlier prehistoric dwellings at Jarlshof (figs. 7, 8, 9). There were also recovered a few hammer stones, some pieces of pumice, two small scrapers of quartz similar to those found in the smeltery (fig. 10), and a round anvil stone such as would be used in their manufacture. A few pieces of coarse black pottery were found, not identical with that from the adjacent building, but of the same character as most of it, some stone pot-lids (fig. 11), also a

EXCAVATION OF AN IRON SMELTERY AT WILTROW. 161

cube-shaped block of sponge iron (fig. 12), and fragments of three separate saddle querns (fig. 13). Of these, two pieces of one quern were found in the interior, and the two other contiguous fragments among the debris at the entrance. These querns have been of typical saddle-back type, differing materially from the trough querns found at Jarlshof.

Lying to eastward of the dwelling, from 12 to 80 feet distant, lay a



Fig. 9. Stone Implements found in the Dwelling.

group of tumuli, six in number. They were small inverted bowl-shaped mounds measuring some 10 to 12 feet in diameter, and from 18 to 20 inches in height, covered with a growth of stunted heather. One of these, which lay some 23 feet distant, was excavated. Beneath the covering of heather on the surface it was composed of stones gathered from the moorland, of a size such as a man could easily lift with one hand. From among these stones came the broken ends of three stone implements similar to some found on the other sites, and an abraded hammer stone. Towards the centre of the mound the stones were larger, and in the heart

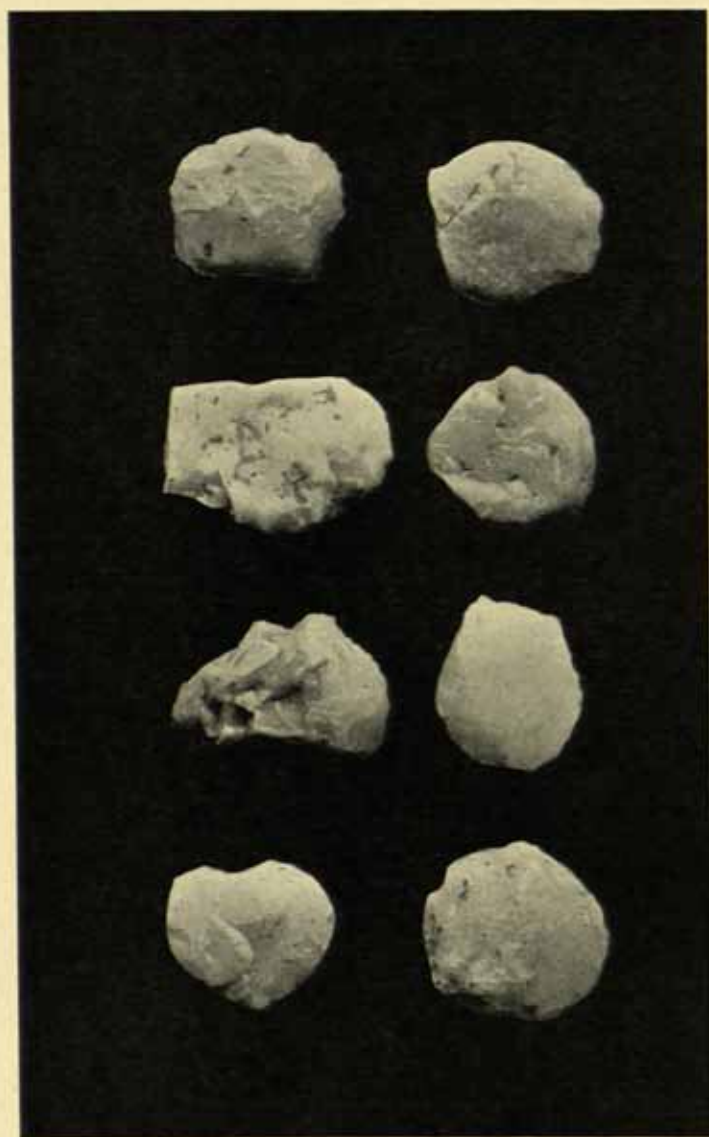


Fig. 10. Scrapers of Quartz from Smeltery and Dwelling.

of it there appeared to be a rudely defined conical construction, rising from a platform of flat stones, and formed of cobbles surmounted by a small boulder measuring 1 foot in length by 8 inches in thickness. On removing this apparent construction there was disclosed a level bed of rock measuring 3 feet 5 inches in length by 1 foot 7 inches in breadth and seemingly undisturbed. There was not the slightest trace of a burial either by inhumation or incineration. The only other find, in addition

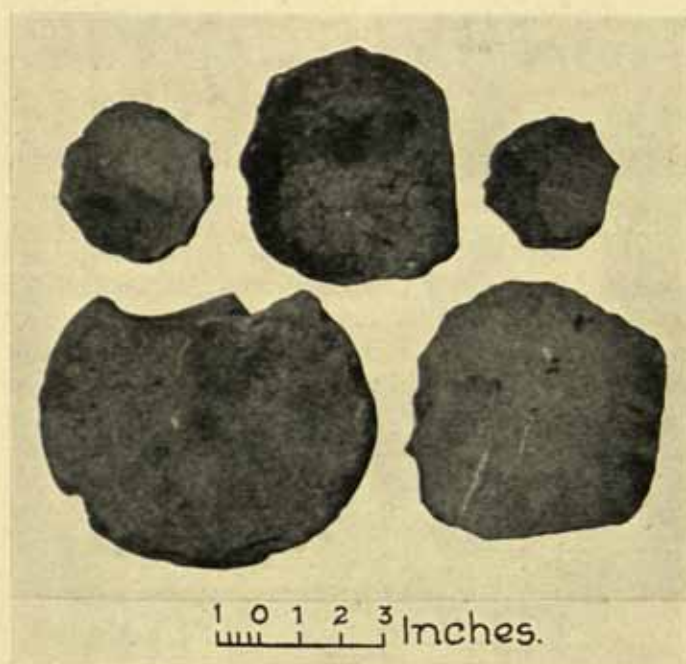


Fig. 11. Pot-lids found in Dwelling.

to the portions of implements, was a sherd of very rotten pot found fairly high up and outside the central cone, similar to that found in the smeltery but more affected by heat, the chips of steatite being entirely burned out of it.

Another tumulus adjacent to the stone dyke, and one of the two furthest from the dwelling, as shown on the plan, was also excavated. In it there was less suggestion of construction but, as in the previous example, towards the centre the stones were larger. It also had been erected on a rock surface. From among the general mass of stones there were recovered eight stone implements of an axe-like form, whole or in part, and one half of a pot lid.

The facts revealed in this excavation call for some consideration.

In the first place it is remarkable to find a group of furnaces for the extraction of iron, associated with rude stone implements of definite types similar to those found in the prehistoric dwellings at Jarlshof, and there associated with the working of bronze. From this it is obvious that such stone implements, to whatever uses they might have been applied, were not superseded by either bronze or iron. It must be noted, however, that certain implements of a class which was common in the earlier levels at Jarlshof are absent from Wiltrow, viz. those fashioned from slate or kindred material, to the shapes of knives and serrated blades, and to heart-shaped perforated shovels. Scrapers of quartz were found at both places, but



Fig. 12. Block of Sponge Iron.

whereas those from Jarlshof are large and rather clumsy, those from Wiltrow are small and neatly fashioned, resembling in this respect thumb-nail scrapers of flint. As metal did not



Fig. 13. Remains of Saddle Quern.

supersede the rude stone implements we may presume that, notwithstanding the introduction of metal, they continued to be employed in the same industries as formerly. What were these industries? From the finding of

grain in Jarlshof associated with bronze, we know that the inhabitants cultivated the soil, therefore some of these stone objects were used in various processes of agriculture, such as opening up the soil by ploughing or otherwise, in breaking down clods, also probably after harvest in bruising the barley. For building, large stones would have to be levered up from the land surface in which they were embedded: peats were burned and so had to be dug out. Vessels were fashioned from steatite so that material had to be quarried from the rock faces. Clay was required for potting, and had to be extracted, and before being ready for the potter it had to be prepared: sheep and cattle had to be slaughtered and flayed, and the skins cured. There being no timber on the island, except such odd tree trunks as might be brought to the shores by the ocean currents, there was no need for sharp-edged tools in industry.

We have seen from the finds at Jarlshof that bronze was chiefly employed for the manufacture of swords, so in view of the continued use of the stone implements it seems likely that iron, if not being extracted for export, was similarly to be used for weapons. As bog iron, however, is widely distributed in Scotland there was probably no occasion anywhere to import such iron produced from Shetland.

No doubt these implements were specialised, but so far it has not been possible to determine the purpose that each type served. One spatulate tool found at Jarlshof bore clay on its surface, and as it would have answered the purpose of a trowel it may have been so employed. That round stone discs found both at Wiltrow and Jarlshof were pot lids was clearly proved by their being found *in situ* on the tops of pots.

The true character of the small stone heaps known as tumuli which abound in certain regions in Scotland has long been a puzzle. They are almost invariably found in the neighbourhood of hut circles, sometimes within a few feet of the circle, and never very far away. A number have been examined with negative results. It has been assumed that these are burial mounds, but as a rule neither traces of inhumation nor of incineration have been found within them. A notable exception, however, must be stated. In 1908 the presence of unburned burials in a number of small stone cairns was revealed by the senseless action of a crowd of youths on the shore near Gullane, in East Lothian, and adjacent to a cairn of the early Iron Age which had just been excavated. It is noteworthy, however, that these tumuli¹ were situated on the sand and not on cultivable land. The possibility that they are in the majority of cases merely collections of surface stones from small patches of cultivated land is conceivable. The facts elicited by the excavation of two of

¹ *Proceedings*, vol. xlii. p. 332.

these tumuli at Wiltrow lends some weight to the latter suggestion. Obviously if stones were gathered off a piece of cultivable land they would be deposited on a useless surface. Both the heaps at Jarlshof lay on rock. It is natural that the larger stones would be gathered first, and so the larger stones were at the bottom. The fact that so many stone implements, broken and otherwise, were in the heaps indicates that the material was collected from the surface in the immediate vicinity. If there had been a burial otherwise than after cremation the body must have been simply laid on the rock and covered with a very inadequate heap of stones, in which there was little or no soil, a singularly unpleasant arrangement in the immediate vicinity of a dwelling. Finally if the body had been so dealt with, there would have been some arrangement of stones around it to form a space in which to deposit it, analogous to that found in the Iron Age cairn at Gullane, above referred to, but any indication of such an arrangement in this case was absent.

The pottery (fig. 14), which for the most part came from the smeltery, consisted of numerous small pieces, and though there were a few fragments of rims shown by sections, etc., in fig. 15, there were not enough pieces of any one vessel capable of being joined together to show the form. The ware was coarse, and as a rule open in texture, with numerous rather large chips of steatite in the body. Many of the pieces were ornamented with rectilinear impressions of varying depth, taking the forms of chevrons and lozenges. One small portion of a rim showed two diverging horizontal lines suggesting the formation of a late Celtic motive. Unfortunately the piece is too small to be certain of the style the complete decoration would have assumed (fig. 14, No. 7).

The vessels, which had for the most part been cooking-pots, appeared to have been straight sided with edges bevelled towards the interior. One rim section (fig. 14, No. 3) indicated a spherical body with an up-standing rim.

In its ornamentation this pottery bore no resemblance to any pottery found at Jarlshof, though the rim section above referred to was not unlike a section of a sherd found in the latest level of occupation of Dwelling No. iii on that site.¹ In the impressed treatment, however, there is a fairly close analogy with pottery from the Hebrides, notably with that from the earth-house at Foshigarry in North Uist excavated by the late Mr Erskine Beveridge, LL.D., F.S.A.Scot.² There were, however, applied bands on many of the Foshigarry vessels, a feature absent from all the pieces at Wiltrow. Somewhat analogous pottery found at

¹ *Proceedings*, vol. lxxviii. p. 224, fig. 58, No. 7. ² *Proceedings*, vol. lxxv. p. 299, figs. 23, 24.

Galson, Borge, Port o' Ness, Lewis, and Pigmies' Isle off the Butt of Lewis, is in the National Museum of Antiquities.

The block of sponge-iron and samples of other material found in the smeltery were submitted to Dr C. H. Desch of the National Physical Laboratory, who very kindly examined them. He reported that the sponge of iron had all the appearance of iron made in a bloomery before hammering, but that it had oxidised so completely as actually to be non-

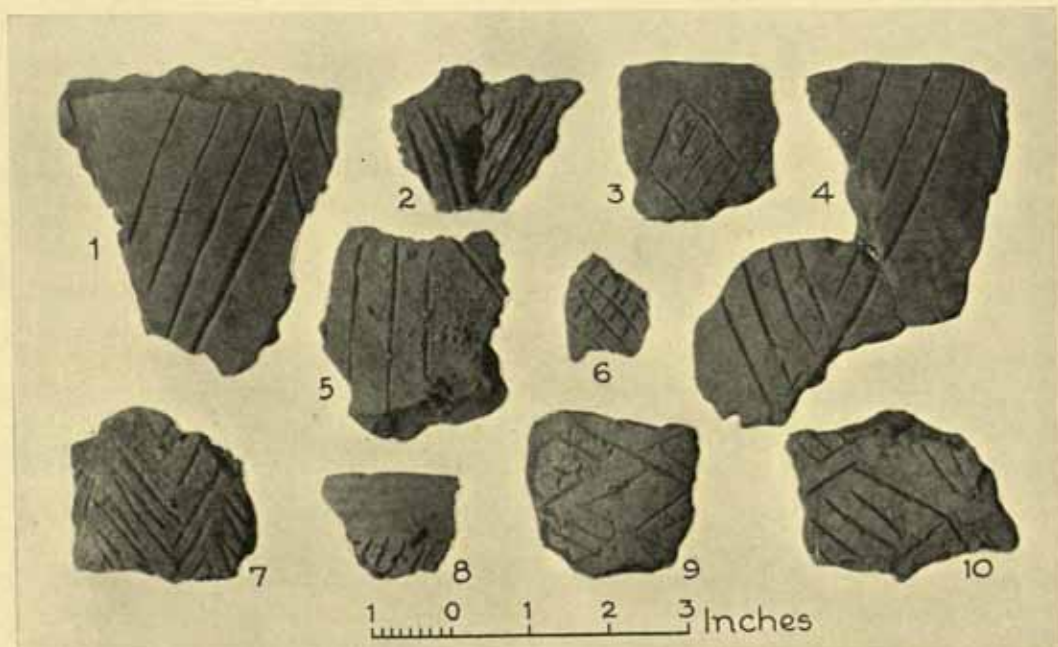


Fig. 14. Sherds with incised Decoration from Smeltery.

magnetic: certain specimens, he reported, were, without doubt, bog ore from which the iron was made, also that it would be in all probability a self-fluxing ore which would lend itself to the bloomery process.

So unusual an occurrence as the association of iron with rude stone implements such as were in use with bronze, requires a statement to show that the association was not merely one of locality but equally so of time. In other words, that the iron furnaces were not constructed in the ruins of a building belonging to an earlier epoch. On that point the evidence was conclusive. The iron and the pottery were on the same floor level, in fact there is iron adhering to more than one of the sherds, and no evidence emerged to suggest that the smeltery was not an original

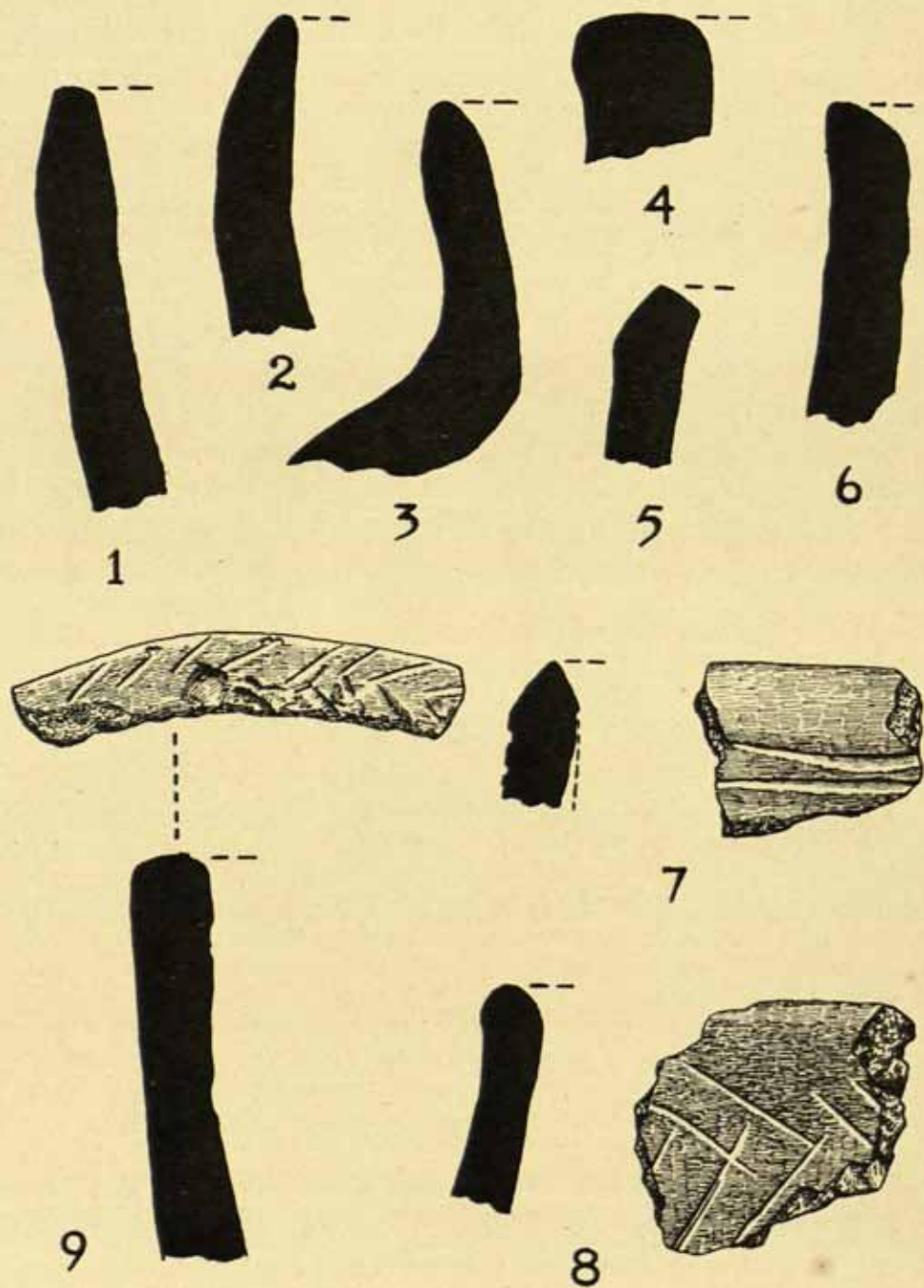


Fig. 15. Sections, etc., of Rims from the Smeltery.

construction. Remains of iron, moreover, were not confined to the furnaces. A considerable quantity was found on the floor of one of the chambers in the dwelling, and the sponge of iron actually came from the latter site.

The chronological relation which the occupation at Wiltrow bears to that at Jarlshof is more or less determined by a comparison of the relics. We have seen that the rude stone implements, which continued through the Bronze period in the latter site, were still in use at Wiltrow. The same may be said of quartz scrapers, though the form of these objects had changed in that they were smaller. But in the third occupation level of Dwelling No. iii at Jarlshof, which was clearly referable to the Iron Age, rude stone implements were not numerous and quartz scrapers were entirely absent; the pottery also from being straight sided in the earliest period had become shouldered, often with a sharp angle at the shoulder. At Wiltrow, as we have just seen, the pottery with one exception, as far as ascertainable, was straight sided. The Wiltrow occupation appears therefore to have occurred very early in the Iron Age of Shetland, before an extension in the use of iron had brought about its substitution for the rude stone implements with which the people carried on their ordinary vocations. The exploration during the last summer of a hut circle and earth-house adjacent to the group of prehistoric dwellings at Jarlshof, and to be described hereafter, revealed the fact that the rude stone implements, as well as the scrapers of quartz, had entirely passed out of use before its construction. This, to judge from the pottery, had occurred not long after the date of the latest occupation of the Dwelling No. iii, and some time before that of the neighbouring broch.

In closing I desire to express my indebtedness to Miss Cecil Mowbray, F.S.A.Scot., for having surveyed and planned the remains at Wiltrow, also to Mr Calder, F.S.A.Scot., of the Royal Commission on Ancient Monuments, for assistance in the planning. My thanks are due also to Dr C. H. Desch of the National Physical Laboratory for sparing time to examine the iron relics; to Mr Knox of the Geological Survey of Scotland for giving me a report on the stone chip used in the pottery, and I must not omit to acknowledge my indebtedness to Mr Robert Bairnson for having directed my attention to the site and to his father for affording me every facility to excavate it.

II.

EXCAVATIONS AT THE DOUNE OF INVERNOCHTY. By
W. DOUGLAS SIMPSON, M.A., D.LITT., F.S.A. SCOT.

HISTORICAL INTRODUCTION.

When in the thirteenth and fourteenth centuries the ancient Celtic province of Mar emerges as a feudal earldom, we find that it was composed of five great lordships: the lordship of Braemar, the capital messuage of which was the Castle of Kindrochit; the lordship of Cromar, centred on Migvie Castle; the lordship of Strathdee, based on the Castle of Aboyne; the lordship of Midmar, with the castle of the same name; and the lordship of Strathdon, the capital messuage of which was the Doune of Invernochty. All these five pivotal castles, together with the main seat of the Earldom at Kildrummy, are known to have been in existence during the thirteenth and fourteenth centuries.¹ Kindrochit, Migvie, and Kildrummy appear from the outset to have been stone castles, though at Kildrummy there was an earlier *motte*, on a different site. Midmar and Invernochty began as *motles*; but at the former place the early earthwork castle was superseded in the sixteenth century by a stone building in a new situation; while at Invernochty the *motte*, apparently at an early date, was crowned with a curtain wall enclosing buildings also of stone.

The Doune of Invernochty² ranks with the Mote of Urr and the Castle of Duffus as one of the three grandest examples in Scotland of a Norman castle in earthwork. Its size is so impressive, far exceeding that of the capital messuages of the four sister lordships, that we can hardly doubt it was designed as the principal castle of Mar, probably in the earliest period of infeudation, before the founding of Kildrummy Castle in the reign of Alexander II.³ The building of the great stone castle, ten miles down the valley, would deprive the Doune of much of its importance and doubtless accounts for the scantiness of its recorded history. Apparently the only specific mention of the place occurs in 1507. On 8th August in that year James IV. granted a large portion of the lands

¹ For fuller details see my paper on "The Early Castles of Mar" in *Proceedings*, vol. lxiii. pp. 102-38.

² Fuller details are given in my paper in *Proceedings*, vol. liii. pp. 34-45.

³ For the circumstances, see *Proceedings*, vol. lxii. pp. 36-42.

of the Earldom of Mar—then held by the Crown—to Alexander Elphinstone of that ilk. As Kildrummy Castle was still retained by the King in his own hands, it was necessary to fix a capital messuage for the lands made over to Elphinstone, and so they were constituted as the barony of Invernochty, and the chief messuage was declared to be *apud antiquam maneriem de Invernochty*.¹ Probably this was a purely formal provision in order to obtain a head place for the barony, where courts might be held and sasines taken; and it would be extremely rash to assume, on this



Fig. 1. Map of Strathdon, by Robert Gordon of Straloch. (Reproduced by permission from the original in the National Library of Scotland.)

evidence alone, that the Doune was still inhabited at this date. In any event Elphinstone within another twelvemonth received a further grant, including this time the custody of the Castle of Kildrummy, where thereafter became his seat. Further historic information about the Doune appears to be lacking. It is stated that the parish church of Invernochty originally stood on its summit, and in fact the church is marked in this position, between the Nochty and the Don, in the first draft of Gordon of Straloch's map of Aberdeenshire, preserved in the National Library of Scotland (fig. 1). As published in *Blaeu's Atlas*, 1654, the church occupies its present site, on the opposite bank of the Don; from

¹ *Registrum Magni Sigilli Regum Scotorum*, 1424-1513, No. 345; cf. *Antiquities of the Shires of Aberdeen and Banff*, vol. iv. p. 739.

which it may perhaps be concluded that the transfer had taken place immediately prior to this date. The older church on the Doune would doubtless have originated as the castle chapel. It is first on record in a deed dated between 1199 and 1207, whereby Gilchrist, Earl of Mar, impropriated the Church of Invernochty to the Augustinian Priory of Monymusk recently founded by him.¹ In 1409 a feudal servitude due to the Earl of Mar in respect of the lordship of Strathdon is payable at the south door of the church of Invernochty,² a circumstance quite in keeping with the idea that the church stood within the capital messuage of the lordship.

The history of Strathdon, during the period of infeudation from which the Doune of Invernochty must date, is almost an entire blank. But a remarkable archaeological discovery, illustrating this obscure period, was made in 1822, when a hoard, consisting of two rings and several hundred silver coins, evidently buried in the thirteenth century, was unearthed in digging the foundation for a dyke on the north-west side of Tom Fuarach, about three and a half miles above the Doune and at a height of 1600 feet. With the exception of two coins that found their way into the National Museum,³ both coins and rings unfortunately seem long ago to have disappeared, but the very precise account of them given by the Rev. Robert Meiklejohn, at that time minister of Strathdon, is worth reproducing:—⁴

"One of the rings is gold, with a small dark sapphire. A ring precisely similar was discovered, 16th July 1829, with other relics, in the coffin of a bishop of Chichester, in the Cathedral of that city. The date of the tomb is A.D. 1146. The other was a broken iron gilt ring, with a pale sapphire, and is very similar to many Arabian and Indian rings. The coins are nearly all of Henry III. of England. Some of them are of William the Lion of Scotland, and two of them of King John. A portion of them was divided into halves, and others into quarters. Those of Henry III. have on the obverse the King's head, full-faced and crowned, holding the sceptre with a cross pattee: reverse, a cross with a small cross in each quarter. They all have the names of the towns where they were coined, and of the mint-masters, such as SIMUN ON+CANT. (Canterbury). The coins of William have the King's head in profile on the obverse, holding the sceptre with a cross. Reverse, a cross with a star in each quarter. Those of King John are stamped with a triangle on both sides. The effigy on the obverse is within the triangle. They are much defaced."

¹ *Registrum Prioratus Sancti Andree*, pp. 374-5.

² *Registrum Magni Sigilli*, 1424-1513, No. 56.

³ *Proceedings*, vol. v. p. 31.

⁴ *New Statistical Account*, vol. xii. (Aberdeenshire), p. 546. The site of the discovery is shown on the 6-inch O.S. map, Aberdeenshire, sheet ixix.

With regard to this hoard Sir George Macdonald has been good enough to write me as follows:—

"The account of the coin find is all right. In those days and for long afterwards, English coins provided by far the larger part of the currency of Scotland. The proportion in hoards is usually somewhere about 30 : 1. The halving and quartering is quite in order.

"Meagre as the details are, they are sufficient to make it possible to say something about the date. Richard I., John, and (until 1247) Henry III., all used on their pennies the inscription HENRICVS REX simply. As ANGLIE TERCII did not make its appearance until the long-cross series began (in the year I have named), I take it these must have been long-cross pennies. Without TERCII or III. it is highly improbable that the finders would have ascribed them to the *third* Henry. But long-cross pennies *with a sceptre* were not struck till 1250. The moneyer's name, however, proves that short-cross pennies were present also. Simon of Canterbury figures as mint-master in 1199 under King John, and he continued to strike short-cross pennies under Henry III. till 1242. You may take it, I think, that the deposit belongs to the third quarter of the thirteenth century or possibly the fourth.

"The coins of John must have been half-pennies. He put his own name (IOHANNES) on that denomination. These half-pennies are exceedingly rare.

DESCRIPTION OF THE SITE AND EXCAVATIONS.

The Doune (see general plan, fig. 2, and view, fig. 3) is an oval *motte*, carved out of a residual mass of fluvatile gravel,¹ its long axis lying from north-west to south-west. Before excavation, it was evident from foundations that the summit had been surrounded by a wall placed on the edge of the scarp, with an entry at the south-east end, to which a niched pathway ascends the mound diagonally. Within the entry to the left a sunk area represented the interior of a building excavated prior to 1875. The enclosure on top of the *motte* measures 250 feet in length and 120 in breadth. Various lines of turf-covered foundations seemed to show that this area had contained a number of buildings, and one small fragment of wall still cropped out above ground. No doubt the stone curtain and interior buildings would be secondary: and evidence of this is afforded by the way in which the wall at the gateway is benched or set back into the substance of the *motte*. The *motte* is about 60 to 65 feet in height, and rises with a slope of some 50 degrees from within a ditch varying from 22 to 32 feet in basal width, with an average depth of some 20 feet, reckoning from the summit level of the counterscarp bank. The latter (doubtless composed of the upcast from the ditch) is expanded

¹ See A. Bremner, *Physical Geology of the Don Basin*, p. 119.

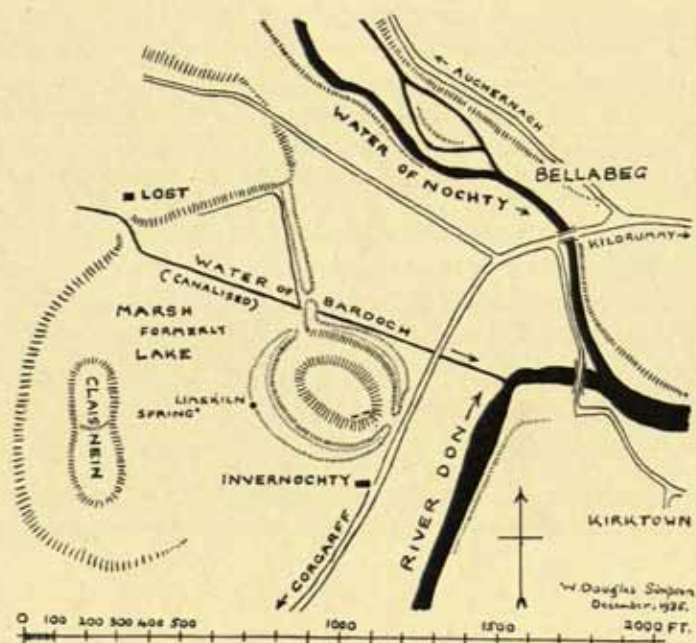


Fig. 2. Doune of Invernochty: General Plan.



Fig. 3. Doune of Invernochty: View from South. (From a photograph in the Macbean Jacobean Collection, Aberdeen University Library.)

on the west side to form a crescentic berm or platform, 74 feet in greatest width and raised about 8 or 9 feet above the surrounding fields. This platform, upon which foundations used to be visible, would form a kind of bailey; its relatively small dimensions probably are due to the unusual size of the area on the top of the *motte*. On the east side the bank is 10 feet broad at the north end, increasing to 25 feet near its south-east corner. All round the counterscarp a well-marked narrow mound exists, probably for the purpose of carrying a palisade.¹

Special interest attaches to the arrangements for filling the ditch. The ground to the north and west of the castle was formerly a marsh, fed by the brisk little Water of Bardoch. From the north-east corner of the counterscarp a great bank, 15 feet broad at top, 5 feet in height, and 150 yards in length, is carried across to the high ground farther north (below the farm of Lost), thus retaining the waters of the swamp, so that the whole area would be converted into a lake. Just within the bank a gap is left in the counterscarp, through which the waters of the lake would be admitted into the ditch. Another gap at the south end would allow of the ditch being emptied. These gaps doubtless were fitted with a penstock and sluice, so that the ditch could be emptied and filled, or the depth of the water regulated at will. The whole arrangement is as simple as it is well contrived, and affords a remarkable example, on a great scale, of Norman military engineering. A third gap, in the great bank about 90 feet out from its root, seems to be a modern cutting made to drain the lake.

The purpose of the excavations now to be described, which were carried out during October last by the proprietor, Mr F. L. Wallace of Candacraig, was to expose the ring wall on the crest of the *motte* and to trace out, as far as time permitted, the plan of the interior buildings, as a prelude to a systematic exploration of the site which it is proposed to commence next season.

The foundations of the ring wall (see plan of summit area, fig. 4) were revealed *in situ* round the whole circumference of the *motte*, a total length of 594 feet. At the entrance it is over 6 feet thick, and remains to a maximum height of about 4 feet. The wall here rests on a rough projecting base-course, and consists of a grouted core faced with large coursed boulders. The left cheek of the gateway is still distinct, although all dressed work has been torn out; the right cheek is well-nigh totally destroyed, but from some slight indications it appeared that the portal had been 7 feet 3 inches wide. On either side of the interior face are

¹ The structure described as a "well" in my former account, on the north-west side of the counterscarp, is an old lime kiln.

rough projecting corbels, or rather tusks of undressed stone, which may have been part of the supports for an overhead construction of timber. For most of its circumference the ring wall rests on a curious, irregular, external pitching or apron of stones, bedded without mortar in the substance of the *motte*, and extending in places to a distance of as much as

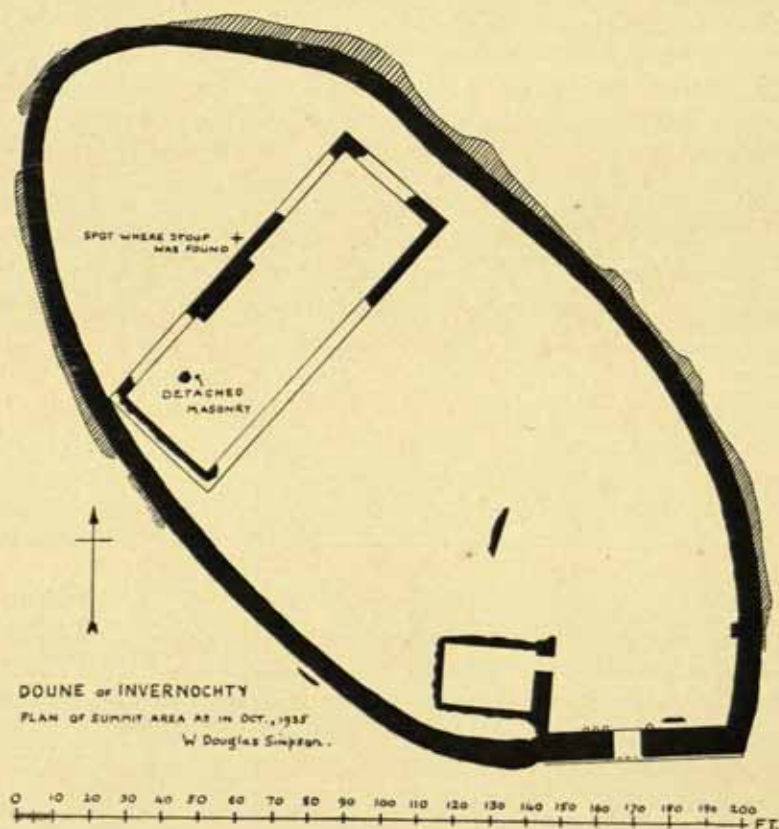


Fig. 4. Doune of Invernochty: Plan of Summit Area.

5 feet in advance of the wall. There is a small internal buttress on the east side near to the south corner. The gap at the north end of the ring wall (mentioned in my former account) from which a path leads down the *motte*, was found to be modern, *i.e.* there has been no postern here. On the west side is a small fragment of the inner facing of a second wall (as shown on plan), from which the front part has disappeared. This wall could hardly have been built immediately in front of the main ring

wall; it will therefore be older in date, and must have come to grief before the present curtain was erected.

Within the enclosure the building near the entrance, excavated about 1870, has been again cleared out. It measures 22 feet 8 inches by 15 feet 10 inches, within walls 4 feet thick, laid in clay. The side walls and the west end wall have no outer face, backing against the natural gravel into which the basement of this building has been sunk. In the east wall is the entrance, and opposite to it is a small buttress-like construction which may be the abutment of a fireplace.¹ The floor is of beaten earth.

Stretching right across the summit area, from side to side of the *motte*, are the foundations of a long rectangular building, a fragment of which (as stated above) was visible before excavation. It measures 92 feet 8 inches by 30 feet, within walls 2 or 3 feet thick, laid in lime. Midway in the north wall is a solid internal projection, 20 feet long and 1 foot 9 inches deep. The orientation is 49° N.E. That this building is none other than the ancient parish church of Invernochty is rendered

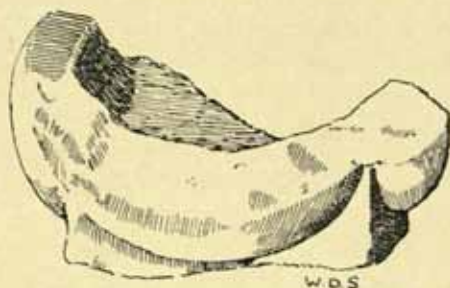


Fig. 5. Basin found on the Doune of Invernochty.

very likely by the remarkable discovery, immediately to the north of it at the spot shown on plan, of what seems to be part of a Norman stoup or piscina. The fragment (fig. 5), which is in Kildrummy freestone, represents a shallow circular basin, the diameter of which had been about 10½ inches, while the lip is 2¼ inches broad, slightly bevelled on either arris. The under part of the basin is designed as a Norman cushion capital with invected or scalloped faces, and between each scallop is a narrow keeled moulding. Unfortunately, owing to its broken condition, it is impossible to say whether there was a drain or not. The basin appears to have been cloured away from the wall by a blow which broke it off and knocked away a large portion of the lip. Previous to its being made into a basin the under surface of the stone had been used as a whetstone, no doubt by the masons working at the castle.

It is interesting to note that the design of this basin is very similar to that of the cushion caps of the chancel arch at Monymusk Church.² In view of the historical connection between Monymusk Priory and its

¹ This small feature has been accidentally omitted from the plan (fig. 4).

² *Proceedings*, vol. lix. p. 61.

impropriated rectory of Invernochty, it seems not unlikely that this basin was carved by the same craftsman who did the Norman work at Monymusk.

Another Norman fragment was found in excavating the church. It is a small piece of Kildrummy stone, forming a jamb with a square arris. The face is wrought with two sets of "droves" or tooling lines, diagonally to each other, and meeting on a line so as to form a series of chevrons one within the other.

The importance of these discoveries lies in the fact that they are the first case recorded in Scotland of Norman stonework on a mount-and-bailey castle.

No other wrought stones were found, but chips and fragments of Kildrummy freestone were fairly frequent everywhere.

The only other portion of walling uncovered so far is the small length of foundation in the centre of the southern sector of the courtyard, as shown on plan.

NOTE ON RELICS FOUND.

Pottery.—84 sherds, mostly small. In so far as these possess distinctive characteristics, they closely resemble the wares found at Coull Castle,¹ also in Aberdeenshire, and suggest an early fourteenth century provisional date for the general *facies*. At all events no pieces demonstrably later have been noted. Two fragments fitting together are part of a large pitcher handle in coarse dark ware, oval in section, strongly ribbed, and showing a deep finger impression at the point of junction with the body of the vessel. Two other sherds form a complete handle, 7 inches long, with a curved section, hollow on the outer side, and showing finger imprints at both ends. A number of other sherds have these characteristic thumb or finger prints. Two types of brim are present: both are thickened and flat on top, but one is sharply everted and the other not. Both types were found at Coull; they are the rims Nos. 3 and 5 of Professor M'Kenny Hughes' sections.² The bases are obtuse angled and slightly convex on the bottom, but no crinkled or "pinched" edges are represented. Exterior ornamentation for the most part consists of the usual horizontal ribbing or striation, which is often present internally as well. One highly glazed fragment shows thin vertical ribbing, widely spaced. Four sherds have a horizontal rib toothed by cross hatchings, a ware exemplified at Coull by the pieces A 7 and A 9. It is the pattern of the vessel B 45 in the British Museum collection.³

¹ *Proceedings*, vol. lviii. pp. 81-8.

² *Archæological Journal*, vol. lix. p. 236, pl. i.

³ *Catalogue of English Pottery in the British Museum*, p. 63.

Another piece of this hard glazed ware shows oval studs in *appliqué*: this also seems to be a fourteenth century *motif*. The pastes exhibit the common gradations between fine hard pink and coarse dark grey gritty material, and the glazes vary from bright yellow through various shades of green to a kind of russet. There are the usual fragments of unglazed, soot-stained pipkins.

Ironwork.—30 items. Of these 20 are nails. They show the usual four-sided section, but the heads are all flat and circular, and the quadrilateral type, often found at Coull,¹ is not represented. The nails vary in length from $3\frac{1}{8}$ inches to 2 inches. The remaining determinable objects are: a horseshoe, 5 inches in length; a flat object, 2 inches long, rounded on the edges and looped at both ends, apparently a link for uniting two pieces of belting; part of the blade of a broad, blunt-pointed knife; and a pin or ferrule, 4 inches long.

Flint.—A small piece of worked yellow flint, possibly for a strike-a-light.

Gold Brooch.—Much the most important relic yielded by the Doune was a talismanic "Annunciation" brooch in gold (fig. 6), found during the excavations of last century. It is now preserved at Newe. The brooch is circular, and plano-convex in section—i.e. flat in front and rounded behind. Its pin, which is oval in section, flattened frontally at the point, has a collar or flange immediately below the loop hinge on which it is swung, and this collar is enriched with tiny pellets or granulations, like the drupes of a miniature bramble. The loop is thickened and jointed on top. The face of the ring is margined with incised lines, and contains the talismanic inscription, in fine Gothic lettering ✚ AVE MARIA GRACIA PLENA. The over-all diameter of the brooch is $\frac{13}{16}$ inch. This beautiful brooch belongs to a well-known type current in Scotland about the year 1300, which has been exhaustively studied by Dr Graham Callander.² It should, however, be noted that, unlike so many of the examples described by him, there are no signs whatever of illiteracy in the inscription, which is superbly executed.

Bones.—The following note has been furnished by Professor James Ritchie:—



[Photo by G. A. Clarke.]

Fig. 6. Gold Brooch from the Doune of Invernochty.

¹ *Proceedings*, vol. lviii. p. 89.

² *Ibid.*, pp. 160-84.

ANIMAL REMAINS FROM THE DOUNE OF INVERNOCHTY.

BY PROFESSOR JAMES RITCHIE, M.A., D.Sc., F.S.A.Scot.

The bones of animals are not numerous, consisting of about 220 pieces, mostly fragments and almost all showing weathering. They represent for the most part the refuse of meals, many limb-bones and jaw-bones being split longitudinally for the extraction of the marrow. The composition of the food materials is instructive in that the remains of wild animals are very rare, and it seems surprising that in a district well stocked at the time of the occupation of the Doune with wild creatures and animals of the chase, so little advantage should have been taken of the natural products of the countryside. That the inhabitants relied almost wholly upon their domestic stock of food indicates how completely the more primitive hunting stage of existence had been superseded by the sophistication of an agricultural civilisation.

Of the domestic animals used, while remains of sheep are not infrequent, those of pigs are rare, and the mainstay of the food supply was the rather small domestic cattle of the times. In this respect the collection differs from many other Scottish food collections where sheep are predominant; and it may indicate that cattle-raising rather than the herding of sheep was the chief stock industry in the neighbourhood at that time.

Amongst the bones which I have seen there is not much indication that they were put to any special use. But the upper end of one of the bones of a hind limb (the right tibia) of an ox has been cut in a short section which rests firmly upon a level base, while on the upper surface the natural central hollow of the bone forms a socket, roughly an inch in diameter and about an inch deep. The appearance of this small stand, about 2 inches high, suggests that it may have been used as a rude holder, perhaps to carry a burning faggot as a light.

Other bones which have been cut and have a smoothness suggesting use are the lower end of the femur of a sheep, the shaft of which has been trimmed with a long slanting cut so that it forms a narrow scoop; part of a long bone from the limb of an ox, the end of which is trimmed to a chisel shape; and the base of a red deer's antler attached to part of the frontal bone, and trimmed to a rough wedge-shape by a few heavy cuts.

A few bones are calcined.

The animals represented in the collection are red deer (*Cervus elaphus*)—the fragment of antler referred to above and a tooth; domestic cattle

—many bones of a small breed, representing adult and young animals as well as at least one unborn calf; domestic sheep—a number of bones of jaws and limbs, the latter showing that the breed was small and fine-limbed; domestic pig—a fragment of jaw and loose teeth; and horse—represented only by two molar teeth of an individual of a robust type.

III.

SCREENS AND LOFTS IN SCOTTISH CHURCHES.¹

By IAN C. HANNAH, M.P., F.S.A.Scot.

Virtually all mediæval churches were divided by screens. They did much to increase the effect of mystery that is a leading characteristic of Gothic and which made it æsthetically desirable that the whole interior of any building should not be revealed at a glance. They also had important and varied ecclesiological functions.

Screens were by far the most conspicuous of mediæval ecclesiastical fittings as they still are in the eastern church. Very many have disappeared. In Roman Catholic countries they have been very generally removed, but many splendid examples are still to be seen in Lutheran parts of Germany and in certain districts of England, notably the eastern and south-western counties.² In later Gothic work they frequently give the whole atmosphere to the interior. It was a Renaissance idea to give far greater prominence to the altar.

The screens and galleries of Scotland were clearly very distinctive, and although inferior in magnificence to those of England; they helped very much to stamp a national character on many of our churches, including some of the smallest.

In early Christian churches ambons were provided on either side of the chancel for the reading of the gospel and epistle. Some Italian examples survive. Other prototypes have been suggested, but the later pulpitum (the usual western boundary of a quire) appears to have been derived from a screen which connected the ambons. These last

¹ The drawings of this article are by Edith B. Hannah, B.A.

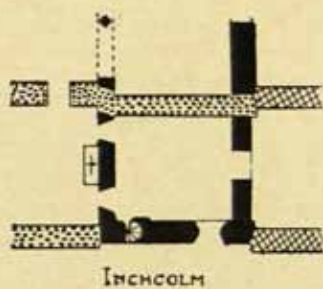
² Excellent English studies are *Screens and Galleries in English Churches* by Francis Bond, Oxford University Press, 1908, and *Quire Screens in English Churches* by Sir William St John Hope, *Archæologia*, 2nd series, vol. xviii. 1917. Innumerable monographs are scattered through the pages of English archæological publications, but nothing seems to exist on the subject of Scottish screens except in connection with separate buildings; and, even so, not much.

soon disappeared and the scriptures were read from the gallery or loft that surmounted the pulpitum. In monastic churches the arrangement eventually developed into two screens, which were sometimes combined into a composite structure, but more frequently were quite separate.

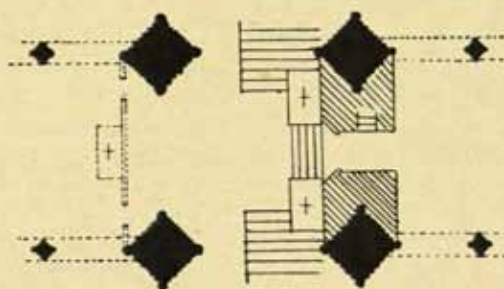
Both screens crossed the building, parallel to each other. Against the eastern one, the pulpitum, the quire stalls were returned, and there was a central doorway, frequently with an altar on either side, which at Glasgow may still be seen. A short distance west was the rood screen, against which was placed the nave altar with a doorway on either side, used by the monks with the pulpitum gateway during the Sunday procession. The name was derived from the fact that the screen was surmounted by the great cross or rood. It seems that as a rule there was no cross immediately on the altar in early mediæval days, certainly none in the Sarum use.

These screens, used in the western church, were thus entirely different both in original design and in use from the eikonostasis of the eastern church, a solid partition in front of the altar, which can only be seen from the nave when the doors have been thrown open.

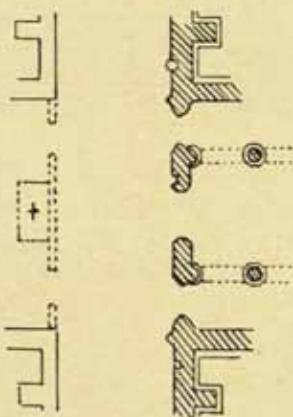
Like quire stalls the pulpitum and rood screen were monastic in origin, and needed because virtually all conventual churches were double, the quire with its stalls being exclusively for the religious, any congregation being admitted to the nave alone. This sometimes formed the parish church with secular clergy, as at Wymondham, Binham, and Boxgrove. Regular canons themselves did parochial work, and so required a separate church for that purpose. In Cistercian churches the nave formed the quire of the conversi. It is probable that in an ordinary Benedictine abbey to which the public had no definite right of access the nave was fitted as a separate church. This was clearly the case at Bury St Edmunds, where Jocelin de Brakelond tells us that Abbot Samson "was wont to preach to the people in English, but in the dialect of Norfolk, where he was born and bred; and so he caused a pulpit to be set up in the church for the ease of the hearers, and for the ornament of the church." Such services would assuredly not be held in the quire of the monks; no part of the great church was parochial. The two parish churches just outside the precincts continue in use to-day. The regulars always tried to keep the parishioners out of their churches. St Margaret's, Westminster, is another example. Very often when this could not be, as at Crowland and Romsey, the parish had only an aisle—not the whole nave. There was always a tendency for monastic arrangements to be copied. The screens are frequently to be found in secular cathedrals and collegiate churches where quire and nave were entirely separate.



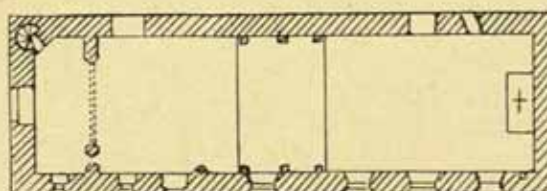
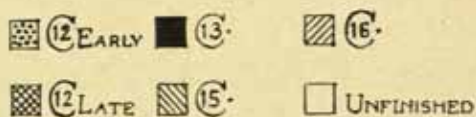
INCHCOLM



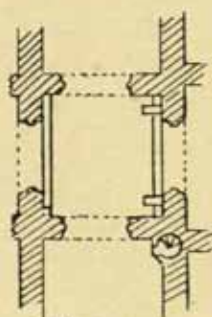
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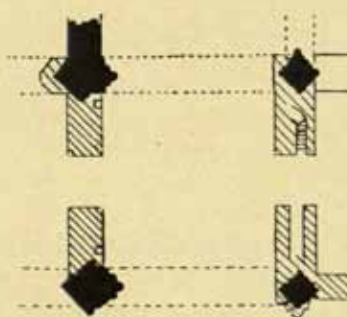
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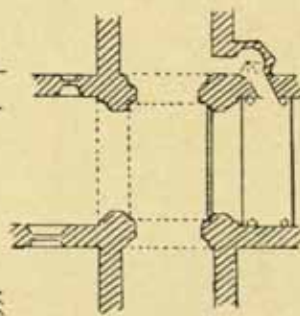
INNERPEFFRAY



SETON



PLUSCARDEN



BIGGAR



Fig. 1. Plans of seven characteristic Scottish screen arrangements.

How entirely is clearly seen at the collegiate church of St Peter, Wolverhampton, whose lofty pulpit, against a pillar of the south arcade, entirely commands the nave, but hardly looks into the quire at all. In purely parochial churches, intended for congregational use, the two screens were unsuitable, and a compromise was arranged (p. 193).

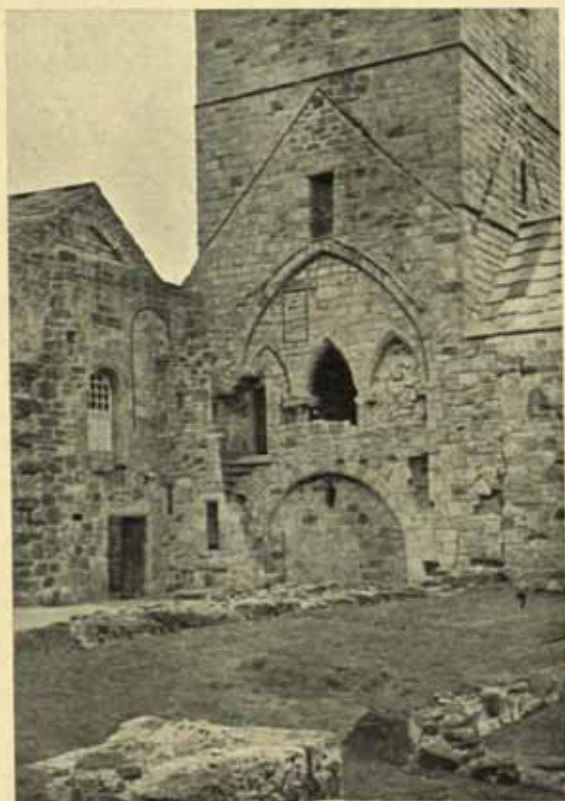
Of the ritual arrangements of churches before the Norman period almost nothing is known, but by that time we find the two screens fully established. At Binham Abbey in Norfolk the twelfth-century rood screen still survives; it is a heavy partition of stone with a plain doorway on either side of the nave altar. This is still in place for the use of the parish, and as the crossing and quire are in ruin the east wall of the existing church is built upon the Norman screen. The Norman pulpitum at Ely was intact until the eighteenth century, and its character is clear from sketches made by James Essex about 1770.

At Iona we have clear evidence of the character of the Norman pulpitum. Against the east wall of the north transept are three twelfth-century arches of which the two side ones open to windows; the central formed some kind of altar recess. They carried a passage from the monks' dormitory to what can only have been a pulpitum loft across the east arch of the crossing. Presumably a night stair led down directly into the quire. This is an early and a very remarkable variation of the usual arrangement of the stair descending from the dormitory into the transept. Unfortunately in the late mediæval reconstruction of the church the pulpitum was scrapped. The gallery now ends abruptly in the south-east corner of the transept; no doorway is visible on the quire side. Presumably the Norman church had rood screen with nave altar across the west arch of the crossing, following a very usual plan.

No English church appears to retain the two screens, though at the Augustinian abbey of Lilleshall (Salop) the bases of both are visible, though in this case the doors in the rood screen are omitted, so that the west end of the nave is entirely shut off from the rest of the church. The position of the two screens is quite clear at Fountains, Bolton, Rievaulx, and elsewhere. In this respect Scotland is more fortunate, both screens surviving at Inchcolm and to some extent at Culross.

The stone rood screen of the latter house is specially interesting from its preservation, not only of the narrow lancet-headed doorways on either side of the altar, but also its piscina, plain thirteenth-century work. When the nave was abandoned to ruin what appears to have been its original west door was slapped through the wall behind where the nave altar once stood. It is of late Norman character with double shafts and moulded round arch, but it can hardly be earlier than 1217, the year of

the foundation of the abbey. This rood screen, though later, is not unlike that of Binham; it now forms part of the west wall of a tower erected by Abbot Mason (1498–1513) over the space between the two screens. Its inner or eastern doorway, which is round-headed with rather ornate late mouldings, is presumably on the site of the pulpitum.



[Photo by Catherine A. Nicolson.]

Fig. 2. Inchcolm—Pulpitum from east. The large round arch is later.

At Inchcolm the two screens are perfectly preserved, the only example in the British Isles. They are beautiful stone work of the thirteenth century, during which period a tower was raised over the square Norman quire, in the middle of the enlarged church. Its eastern arch is filled by the pulpitum (fig. 2), having had a central doorway to the quire, and above three open arches with keeled shafts, three in each jamb, the two pillars quatrefoil in plan; the capitals have foliage in very low relief. The west tower arch is filled by the rood screen, having a narrow pointed

doorway on either side of the nave altar site and two large open arches above, similar to those of the pulpitum. These upper arches with their varied clustered shafts, allowing an imperfect vista between nave and quire, form an integral portion of the fabric, and they must have presented an extremely attractive appearance before they were walled up to convert the Norman nave into an abbot's hall. It appears to be almost without parallel in monastic annals that this desecration was carried out as early as the fourteenth century, and by the Augustinian canons themselves.

These two screens were clearly connected by a floor of timber, which thus formed a gallery open both to nave and quire of unusually generous dimensions, about 19 feet by 15. Doubtless it was used for the reading of gospel and epistle as well as for whatever music was allowed. The doorway, afterwards so usual in friars' churches, opened from the cloister to the space between the screens, beneath the loft. There is a mural rood stair just west of it. It is remarkable that after a use of something like a century the screens were scrapped. There are remains farther east of a rather ordinary later pulpitum against which the stalls of the fifteenth-century quire were returned.

Separate pulpitum and rood can be traced in two late collegiate churches, the work in both cases having been of timber, erected during the sixteenth century, and apparently rather poor in quality. At Seton, now built up, are clearly defined openings for a beam embedded in the north and south walls, crossing the east tower arch. Just above it, recessed into the wall above the arch and resting upon the beam, two short brackets projected, and quite obviously supported a pulpitum loft. It seems to have been an afterthought, as the turnpike stair in the south-east corner of the tower is not arranged to give access. Likewise within the area of the tower, crossing its western arch, was a rood beam for which the holes exist. As the nave was never built it is very unlikely that the screens were actually erected, but the projected arrangement seems to be perfectly clear.

Another very late and rather unusual rood arrangement is to be studied at the collegiate church of Biggar, begun only in 1545. The east responds of the north and south arches of the crossing were cut into (just one course of stone below the caps) for a rood beam which rested against the responds of the eastern arch. About 1 foot higher and entirely independent a very wide pulpitum loft crossed the west end of the quire, approached by a broad square-headed door from the turnpike stair north-east of the tower. It is interesting to find the two features separated only by the width of the east tower arch, so that the actual rood must have appeared in front of the parapet of the pulpitum

and perhaps 18 inches away. Clearly there were not two screens: probably the only one was beneath the rood beam, resting against the responds.¹

These cases, in which both rood beam and pulpitum can be clearly traced, are interesting, not only from their varied dates, but because they show what very small buildings were divided into double churches—though the existence of nave altars (intended or actual) at Seton and Biggar is not perhaps absolutely certain.

There is every reason to believe that the larger churches of Scotland followed much the same screen arrangements as were usual in England. At St Andrews there are distinct foundations of the pulpitum with its central door, crossing the west tower arch, in the same position as at Chichester and elsewhere. The stalls must have shut off the transepts from the quire, a quite usual arrangement. Foundations beneath the sites of both east arches of the nave arcade suggest that the pulpitum was a fairly complicated fabric, very possibly a composite screen enclosing two little chapels with the nave altar against its western face.

The very normal pulpitum at Melrose is interesting as being of the same build as the fifteenth-century nave piers which it joins, in such a way as to shut off the three east bays from the rest. Thus, as at Norwich, Westminster, and elsewhere, the ritual quire was wholly within the architectural nave. The gateway is vaulted with ribs and bosses, and opens westward by a triple-shafted arch with a foliage band in the outer moulding. A rather similarly enriched cornice is the only other ornament of the fabric, whose ashlar walling is surprisingly plain, despite a large square-headed recess on the south. A stair to the gallery above opens northward from the centre of the gateway and is contained in the thickness of the masonry. It seems impossible to find an English pulpitum of the same importance treated with so severe a simplicity, a fact not without interest seeing that Melrose preserves about the only Cistercian example that has come down to us in the British Isles.

A very usual and convenient arrangement placed the pulpitum across the east arch of the crossing and the rood screen across the west, thus leaving the whole transept open between the screens. This is the only scheme that keeps the stalls wholly within the architectural quire, and it was the arrangement at York, also at Durham, as described in *Rites*. It might be considered the normal plan, but that at least as often as not the stalls extended further west than the architectural quire, frequently

¹ Evidence for the above was clearly brought out in the restoration of 1934-5, but the holes have been so neatly built up as to be difficult to locate. Similarly the tower piers of St Giles, Edinburgh, have been so hacked about for partitions that it is impossible to say which, if any, of their numerous gashes were connected with mediæval screens.

when, as at Ely, there was ample space east of the crossing. In Scotland we find this (Durham) arrangement at Glasgow, Rosslyn, Lincluden, and Pluscarden, besides Iona.

The Glasgow pulpitum (fig. 3) is of interest because its two stone altars still exist (slightly later in date), their fronts presenting figures under canopies with scrolls in low relief. So crowded is the work that

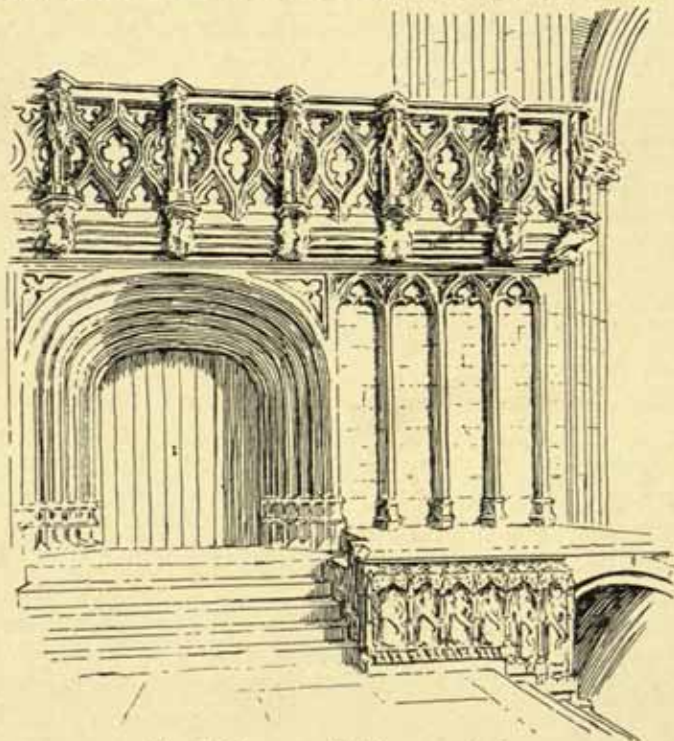


Fig. 3. Glasgow—Pulpitum, west side.

the five steps leading up to the pulpitum gate, and to some extent the side flights leading down to the crypt, actually impinge against the altars. The pulpitum is pierced by a very depressed and ornately moulded archway with shallow trefoiled panelling on either side. The parapet above is pierced by large quatrefoils, figure-corbels supporting crocketed canopies against each alternate one, but nothing rises above the horizontal top. A fifteenth-century date is proved by the moulding of the bases (though the rest retains much of the character of fourteenth-century work); the screen is doubtfully attributed to Bishop Cameron (1425-46), who built the spire. It is remarkable how it blends with the

earlier work. (Glasgow cathedral was always secular, but purely from the internal fittings it must often have been impossible to distinguish between monastic and secular cathedrals.)

At Rosslyn (fig. 4) the pulpitum is an integral part of the fabric. Its gateway is covered by an enriched architrave composed of many stones

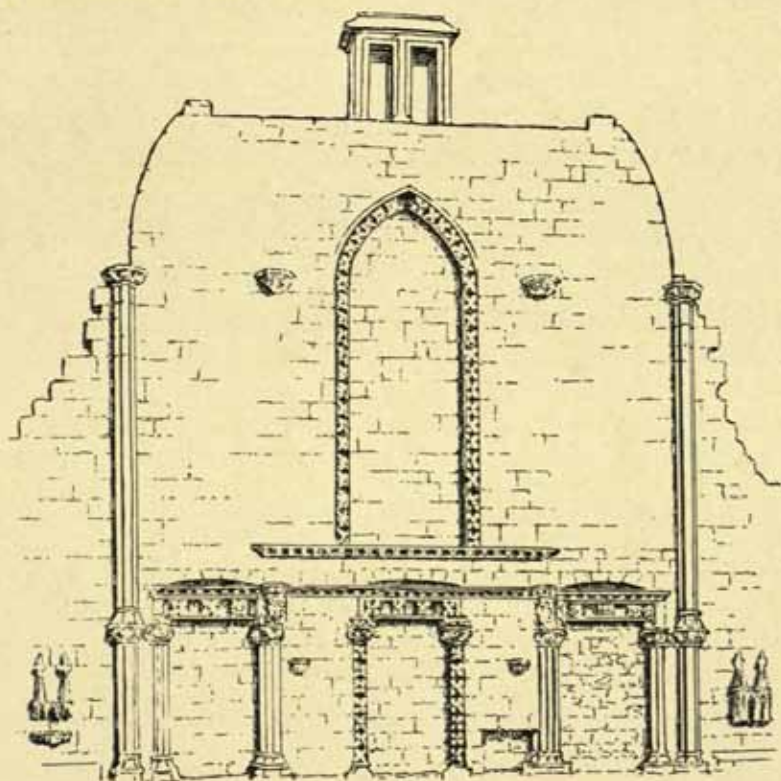


Fig. 4. Rosslyn—Pulpitum after Billings.

and protected by a relieving arch above, very similar to the openings on either side that connect the quire aisles with the site of the transept. All the openings are in the same walling, as the nave was designed to be of the same width as the quire with its aisles. A rather mysterious niche indents the west side of the wall just north of the pulpitum gate. A little way above is a very lofty arch reaching to the barrel vault of the quire, and so very narrow for its height. It seems clear that a wooden gallery was planned over the three openings, projecting into the transept and open to the quire by the tall arch. Two corbels on the level of the

springing of this arch (and also of the clearstorey eaves of the quire) were presumably for statues; no wooden fabric could possibly have sprawled up so high, and the arrangement certainly implies a rood screen with altar against it between the transept and the nave. The design is eccentric in that no quire arch of the ordinary kind, starting from the pavement, is either provided or even suggested. The enriched corbels between the lower openings would presumably have carried the timber gallery, resting on the continuous stringcourse above, which would thus have left enough solid walling to provide a parapet for the tall arch looking into the quire. The illustration is based on Billings¹ compared with the actual building.

The pulpitum at Lincluden is, like that of Rosslyn, an integral portion of the church, but it is in form a heavy stone screen crossing a quire arch of quite usual form—well moulded and resting upon clustered responds. The screen wall is plain but pierced by a gateway some 6 feet wide, its arch very nearly flat though with curved springs. Along the top of the said screen wall a cornice projects on both sides, that towards the nave carved with scenes in the birth of Christ and angels above, that towards the quire displaying foliage. The loft was reached by a turnpike stair in the angle of the quire and south transept, which also gave access to chambers above the quire, between the two stone roofs. The loft seems to have been extended by timbering toward the east. The nave, of which little remains, was short, nor is there a suggestion of any western screen.

The arrangements at Pluscarden Priory (fig. 5) are puzzling, as a pulpitum with central gateway crosses both east and west arches of the tower. Both are very massive, and obviously erected with a view of supporting the thirteenth-century tower arches, which suffered very badly in 1390 from the burning of the church by the Wolf of Badenoch. Both appear to be the work of the Benedictine prior, John de Boys, who was sent to reform the Valliscaulian convent from Dunfermline in 1460; his work is very massive, but clumsy and rough. The western arch is built up, leaving a simple segmental-headed opening about 8 feet wide with very plainly moulded edges towards the nave, which was never completed. The east arch of the crossing is built up with a huge mass of masonry which takes the form of a lancet arch about 6 feet thick, the straight walling on either side, diversified merely by two stringcourses, blanketing in the eastern responds of the north and

¹ The arrangement is rather concealed on the exterior by the addition of baptistery with organ loft above, but Macgibbon and Ross (*Eccles. Arch.*, vol. iii. p. 168) give a view of the present west end as it was before the restoration of the church. A better one will be found in R. W. Billings, *Baronial and Ecclesiastical Antiquities of Scotland*, vol. iv., here reproduced with slight modifications.

south arches. A thin wall blocks the eastern face of the thick arch, this being pierced by a smaller arch having a splayed square-headed opening on either side. Above the little arch the wall thickens out on a cornice upon the west side alone. On the north this great intrusive mass of walling is penetrated by a turnpike stair opening from the jamb of the large arch and leading up to a stone gallery which crossed at the level of the springing of the smaller arch, so that it would form a pulpitum loft for the quire. This stone gallery has completely fallen; it gave the only access to a large ambry within the mass of masonry of the south side. On the flat soffit of the arch can still be seen on a sunny day traces of St John with his eagle and the apocalyptic vision with the hosts of heaven, which was much more distinct when visited by the antiquary, Charles Cordiner, late in the eighteenth century. The work is entirely unprotected from the weather. This fabric is by no means without impressiveness, but it was evidently erected by amateur

builders, like so much Scottish work of its date. As the large quire is very short it seems likely that the west pulpitum was erected with a view to having the stalls under the tower, but that when the eastern arch gave increasing signs of weakness the second pulpitum was, perhaps rather hurriedly, piled up to support it. It appears entirely probable that to it we owe the preservation of the tower, now roofless but otherwise complete.

The fact that at Sweetheart the lower portion of the responds of the west tower arch are broken away seems to indicate that the stalls crossed the tower and came down into the nave (as at Winchester), but there seems to be no trace of the screen. The corbelling off of the responds of the west arch of the crossing at Dundrennan—so that they form no projection at the bottom—appears to show that the arrangement was similar at the old abbey too. At Glenluce the fact that the shaft of the south respond of the east arch of the crossing springs from



Fig. 5. Pluscarden—eastern Pulpitum.
West side.

a corbel high up indicates that, as at St Andrews, the stalls extended under the tower and into the quire.

In the thirteenth century Crosskirk (a Red or Trinitarian friary) at Peebles, in front of the inserted east wall—the lintel of whose doorway is inscribed FEIRE GOD 1656—are stones that seem to have supported an altar platform on the south, and on the north apparent foundations of a screen. The remains are far from clear, but they appear to indicate that the seventeenth-century wall is built on the foundations of a pulpitum which had an altar recessed into it on either side of its gateway.

At Restennet Priory the ancient tower, flush with the south wall of the later Augustinian church but leaving an odd space about 6 feet wide on the north, must have formed a most effective screen between quire and nave. The partition connecting the west face of the tower with the north wall may have been for the purpose of providing a back for the nave altar, which in that case would have stood considerably to the north of the centre, as appears to have been the case at St David's, Wales.

At Jedburgh Abbey, crossing the eastern edge of the east tower arch, are remains of a roughly built sixteenth-century wall from which projected westward some sort of gallery, large corbels with holes in the masonry just above them having supported its beams. The only remaining jamb is in the middle of the work and so placed that any gate into the quire must have been far to the south of the centre. This would be so unprecedented and so inconvenient for a pulpitum that it seems more likely that the wall is post-dissolution, erected to fit the building for Presbyterian services.

The slight remains of the little Carmelite church at Luffness seem to indicate that the gate of the pulpitum there was not quite in the centre.

Presumably on the site of an earlier pulpitum, at Crossraguel a new wall was built between the nave and the quire, apparently during the sixteenth century, before the dissolution of the house. This is thick enough to contain a turnpike stair, and it extends up to the gable top, supporting a bell-cote. The wall is pierced by a central door which could be protected by a wooden bar, so that the separation between quire and nave was exceptionally complete.

That the proportionally very long cruciform church of Beaulieu Priory was divided by a screen is perfectly clear from the existence in the south wall of the ambry and piscina of the nave altar. Both screens were presumably of wood. At St Duthus, Tain, sedilia in the usual position and a piscina in the middle of the south wall indicate that

even this short building of four bays formed a double church, but there is hardly room for two screens. The proportions would best suit a pulpitum with a small nave altar on either side of its gateway.

A magnificent sixteenth-century timber example of an academic pulpitum, which might well challenge comparison with anything of the kind at either Cambridge or Oxford, is to be seen at King's College, Aberdeen. Three canopied stalls on either side are returned against it and splendidly carved doors with open tracery invite admission from the antechapel. The loft above still supports the organ, though the work is very largely restored. There was probably an altar on either side of the gateway, but college chapels, not having naves, had no occasion for any second screen.

At the small Carmelite church in South Queensferry, a building of the fifteenth-century, the east tower arch was crossed by a very low stone screen, gable topped with a roll along the ridge. It was of the same build as the church and only slight sections remain, against the jambs. Doubtless the stalls were returned against it, but it seems likely that there was no second screen, nor altar in the diminutive nave, but that the building, like a parish church, was used as a whole; even so, only very small congregations could be accommodated.

In a church intended to be used as a whole, however large—nave and chancel together—the two screens were combined into one, which had to be a light structure, not seriously blocking the view; it was nearly always of wood. It is generally called the rood screen—because the great crucifix stood either upon it or was supported above—but in form it was more like a pulpitum, affording a wide gate to the chancel, which in a purely parochial building was early fitted with stalls though there was no community to occupy them. The screen was in nearly every case surmounted by a loft, but St Mary's Hospital at Chichester presents a thirteenth-century example without one, and there is another in the fifteenth-century screen at Costessey in Norfolk. Even in England chancel screens are not universal; at West Tarring, Sussex, the panelling against which the stalls are returned is finished at the level of their arms by a series of iron spikes, work of the fifteenth century—proving there was no real screen.

The single screen of light construction was, of course, the normal arrangement for a parish church, where the chancel took the place of a quire, the distinction being that, while the quire was designed for the saying of offices by a community, the chancel was set off for the clergy ministering to a congregation in the nave.

In England as a rule the rood loft is about 4 or 5 feet wide, though

there are examples, as Bere Regis, where it spread over a whole bay, affording accommodation for minstrels. In Scotland the ordinary loft would seem to have been much wider than in England, though we have to judge by rather few examples. At St John's, Perth, one of the finest of Scottish parish churches, the south-west pier of the central tower contains a turnpike stair to the belfry, and this also gave access to the rood loft; both lower and upper doors remain. Two large and

rather widely spaced corbels on either side indicate a very ample loft, which must have filled up the west arch of the crossing in a most impressive way. The work is of the fifteenth century, and a traceried screen beneath the loft may be quite safely visualised.



Fig. 6. Dunkeld.—Parochial arrangement in a cathedral. There are no indications of the character of the screen.

At Perth the rood loft was evidently part of the original design, but at Dunkeld Cathedral in the same county it was clearly an afterthought. A great rood beam rested upon the capitals of the responds of the quire arch, and the lower arch stones have been hacked away—not very neatly—to receive it. This beam clearly supported the rood, but as the arch is now walled up and the quire is mostly modern (early nineteenth century) the arrangements of screen and loft can only be conjectured. As nearly all the Scottish cathedrals had

to serve as parish churches it is not so surprising as it would be in England or France to find parochial fittings in one of them; and in fact where they existed most of the mediaeval arrangements have long since been removed in order that cathedrals that were originally divided may be used as single churches to-day. In France particularly it is only occasionally, as at Albi, that the original partitions survive.

The very remarkable late church at Mid-Calder, begun about 1540 by Master Peter Sandilands, the rector, and never finished, has at the west end of the chancel a heavy arch just over 8 feet wide, with a turnpike stair in the masonry of the north side. The deed by which Sir James Sandilands of Calder binds himself and his heir to complete the

building specifies: "And in the northe angell betuix the foresaid wall vnder the grete brace and northe wall of the kirk syd to rais ane commodious turngreis to serue the rud loft of the said kirk and stepill foresaid als esaly as it may be had."¹ There are clear indications of supports for loft at least as wide as the central arch (on which a small tower was projected), but two large carved corbels have been ridiculously moved to look as if they sustained the modern plaster vault of the chancel. One of these has a rather rude figure and the words PETR' FECIT; the other presents a head and shoulders supporting a shield with the Sandilands-Douglas arms. From this it seems that the rood loft, which would have formed a most striking timber gallery between chancel and nave, was projected and begun by the priestly founder. His nephew became a friend of Knox and an ardent supporter of the Reformation, and this may account for the fact that instead of having a doorway onto the loft the stair is open to it by nothing more than a small square-headed window slit. Though he finished the chancel much as was intended he discarded the rood loft, which had no use in the new services.

In the simple rectangular narrow churches of Scotland without chancel arches it was convenient to support a broad rood loft by beams extending across the building, resting upon corbels in the walls; light was often provided by windows both above and below the galleries, as at Wenhaston in Suffolk. Such corbels, for beams extending from wall to wall, are rare in England; there is an example at Hooe in Sussex. There are good Scottish examples at Greyfriars in Elgin, Fowlis Easter, and Innerpeffray, the two first belonging to the fifteenth century, the third to the early part of the sixteenth.

At Greyfriars, Elgin, there are two corbels on either side and the loft must have been about 10 feet wide at least. On the north side the gallery was lit by a two-light window, the space below having an ogee-headed single-light opening, on the south a door entered from the cloister. As the building was long in ruin no details survive, but from the existence of two little piscinas it is clear that there was a gateway through with an altar on either side. The usual British arrangement in friars' churches was a tall and narrow tower between nave and quire, almost like a tunnel in some cases. As the arch was much narrower than the nave there was space for an altar on each side. At Adare (Co. Limerick) this tower in the Franciscan convent contains the only

¹ The founder gave to his nephew, Sir James, funds for the completion of the church. The deed is printed in *Proc. Soc. Ant. Scot.*, vol. iii. p. 160, *seq.* (1862). It is extremely interesting from the detailed description it gives of how the church was to be completed.

door to the cloister, and there are four corbels for a wide loft, much as at Elgin, though on a more elaborate scale.

At the exceedingly interesting little church of Fowlis Easter, a simple rectangle of approximately 90 by 30 feet, the rood loft was only destroyed in 1889 during a most unfortunate restoration of the building. Its preservation till then was due to the fact that the chancel formed the burial-place of the Gray family, and so was conveniently separated from the church. The four corbels that supported the beams of the loft, two in the north wall and two in the south, may still be seen; in addition there is a lower corbel on the north which clearly supported the stair. This in Scotland was generally of wood; in England it was nearly always a turnpike of stone, even in the smallest churches. The loft was about 7 feet wide. In the south wall are windows to light it and the space immediately below—the upper square-headed, the lower trefoiled. On the north a corresponding lower window is the only one on that side of the church.

Apparently on the front of the rood beam, facing the nave, at any rate below the large painting, was a black letter inscription, which is given by James Stuart,¹ not very convincingly, "ndo · hoc · templū · mernero · cōstruxere · beato · Si · queras · quoto · semel · M^o · c · quad · t · iii · Anno · quo · fuit · is · rome · ceu · dūs · pegre." This he proposes to render, "They built this church to the blessed Merinochus. If you ask, in regard to time, in the year 1143. In which year he was called to Rome as Pope." Dalgetty, modifying this reading of the Latin, gives the far better rendering. Andrew Lord Gray and his Lady "built this church to Saint Marnock: if you ask when, in 1453, the year in which he was abroad as ambassador at Rome." The lettering seems to belong to the beginning of the sixteenth century. The existing church was built by Sir Andrew Gray in the fifteenth. No portion seems earlier.

The screen was presumably flush with the east face of the loft, which thus projected towards the nave in the usual way. A splendid example of such a screen in an aisleless nave with its two side altars complete may still be seen in the beautiful church of St Helen at Ranworth among the Norfolk Broads, but that fine East Anglican example has a grace and finish to which Fowlis can hardly aspire; while the English details are very different indeed.

The beautiful gates of the Fowlis screen have below solid linen panelling; open tracery of very late flowing character forms the middle

¹ In a very interesting little work, *Historical Sketches of the Church and Parish of Fowlis Easter*, printed in Dundee, 1865. A later work on the building by Arthur B. Dalgetty, *History of the Church of Fowlis Easter*, 1933, suggests (p. 44) that the screen was about 5 feet east of the loft, but gives no convincing reason for this most improbable theory.

panels, and above pinnacles are treated as balusters, rather widely spaced to afford a view of the high altar from the nave. They are now moved to the west end. Macgibbon and Ross (*Eccles. Arch.*, vol. iii. p. 197) give a good illustration. On either side of the gates were paintings on oaken boards that must have formed the backings for the two nave altars under the loft. These are very fragmentary, and one appears to be a palimpsest. Among the subjects represented is the descent from the cross.

Above the loft the screen was formed of a really very fine painting of the crucifixion (13 feet 3 inches by 5 feet 3 inches), surmounted by figures of saints. The large painting, which formed a rather unusual rood—for this, as a rule, consisted of an actual crucifix, with sometimes side figures as well—represents the scene on Calvary in great detail. The colouring is wonderfully vivid—despite Protestant whitewash, now removed—the very numerous figures are rather crowded together, including several horses; but the work is really spirited, and the whole appears to throb with life as a mounted centurion exclaims “Vero filius dei erat iste”—“Truly this was the Son of God.”

The character of the work is Flemish, and though it is hardly a masterpiece the general effect is exceedingly striking. It is painted upon eighteen oaken boards, which had to be taken down one by one. Above¹ this painting was a series of portraits, extending for exactly the same width and rising 1 foot and 7 inches above. James Stuart, who saw them in position, enumerates fifteen—armed figure with eagle, St Peter, St John, St Andrew, St Paul, St Matthew, St Thomas, St Catherine, St Philip, St James, St Bridget, Simon Zelotes, the painter, and two monks. Those that still remain, placed like all the other paintings against the walls of the church, are identified as St Catherine of Alexandria, St Matthias, St Thomas, St Simon, St John Evangelist, Christ, St Peter, St Antony, St James the less, St Paul, St Ninian.

This splendid screen must have shut off the chancel from the nave as completely as does an eikonostasis in an eastern church. Its wanton destruction is greatly to be regretted as it does not seem that anything very like it survives elsewhere. No such large paintings belonging to a rood screen appear to exist in the British Isles, but in more magnificent surroundings slightly similar ones may be seen in the great Marienkirche at Lübeck.

The effect must have been greatly enhanced by the fact that the church walls were also covered with paintings representing the life of

¹ It should be noted that James Thomson in an unpublished *Tours through Parts of Forfar, Perth, and Fifeshire*, 1833, says that the saints were then beneath the crucifixion.

Christ which existed in the memory of an old inhabitant with whom Mr Stuart had a talk. It is deplorable that this most interesting church should have survived the storms of the Reformation only to meet with such rough treatment during the nineteenth century.

At the most interesting but not very beautiful late church at Innerpeffray (near Crieff), a simple rectangle some 80 by 27 feet, begun in 1508, a pulpitum gallery about 15 feet wide crossed the centre of the

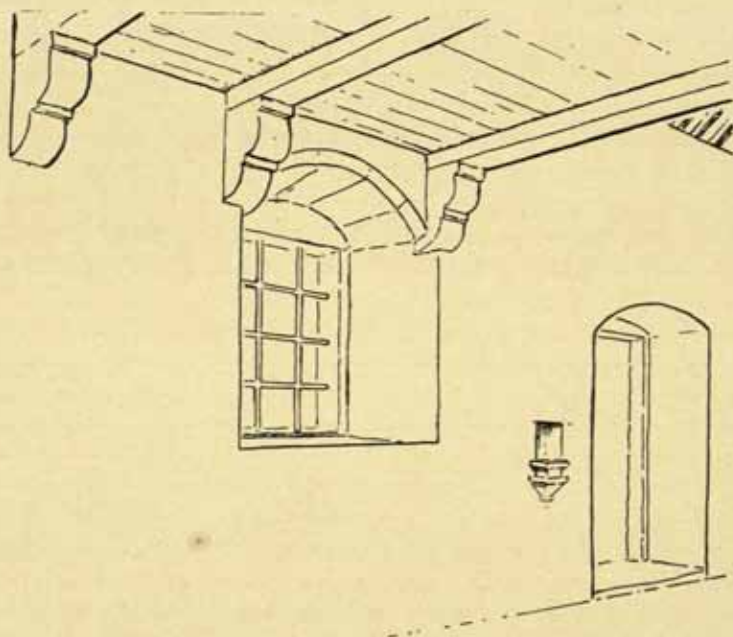


Fig. 7. Innerpeffray—Loft looking south-west (restored).

building (fig. 7). On the south the three corbels on which the beams rested still survive, the depressed arch of a window that lit the space below the loft abutting against two of them. Only one remains on the north; the other two were removed to make way for a monument. Across the church, close to the west end, is a plain chamfered round arch whose jambs retain the holes for a screen. That this was not an open one seems to be indicated by the existence of a hagioscope through the wall just south of the arch; the fact that this appears to be intended to afford a view of the high altar (which is still in place against the east wall) may indicate that here the rood screen was liberally pierced.

As the church had four altars¹ there must have been one on each side of its doorway; these probably stood under the loft (see plan, fig. 1).

It is safe to assume that variety and charm was given to most or all of the plain long churches² of Scotland by these wide corbelled lofts with open screens below. They were probably placed relatively far west and they suited the lines of the building.³

Where (as at Dunkeld, fig. 6) a chancel arch is still intact, traces of the rood screen and loft are not uncommon. The Norman arch at Dalmeny has its capitals hacked about and roughly channelled for a wide loft which was obviously supported by a wooden screen. It was clearly late work and (as is so often the case in England) very little care was taken to make a neat job of the junction of wood and stone. At St Fillan's, Aberdour, another church of Norman date, the abaci of the chancel arch are cut through and holes are made in the outer order of the arch for the insertion of a rood beam. At the fifteenth-century collegiate church of Dunglass the soffit of the east tower arch, immediately above the abaci on each side, is morticed for the rood beam, which was probably contemporary. At the fifteenth-century ruined church of Muthill the chancel arch has no responds; in the soffit each side is a hole for the rood beam and on the north side the stone above is pared away for some part of the loft or screen.

Parclose screens, separating chapels and aisles, which in England are a magnificent feature of many great churches, have in Scotland left hardly a trace. At the fourteenth-century south aisle of Fortrose Cathedral—whose most conspicuous feature is what looks exactly like a rood turret, though it did not serve any such purpose—there are ruined tombs beneath the weather-worn arches which suggest the glories of Tewkesbury quire; but this stands almost alone. This aisle has the appearance of having been a separate church. At Carlisle, Chichester, and Norwich parts of the cathedrals were parochial.

At Torphichen Priory during the fifteenth century timber screens were placed across the west, north, and south arches of the crossing. The former was a most clumsy piece of work. The middle shafts of the fine old Norman arch are removed on either side, and in the jambs behind are square holes to receive the screen about $4\frac{1}{2}$ feet from the ground.

¹ D. Phillips, *Chronicles of Strathearn*, Crieff, 1896, quoted by Macgibbon and Ross, *Eccles. Arch. Scot.*, vol. iii. p. 513. The fourth altar was probably in the sacristy.

² Such as the monastic ones of Beaulieu and Greyfriars, Elgin, or such parochial buildings as Fowlis Wester and Gamrie, Banffshire.

³ A chancel arch inserted in the church of Fowlis Wester during a recent restoration looks strangely out of place.

As it seems too narrow to have been pierced by a door the screen probably formed the back for the altar of the nave. The south arch has a deep channel cut through the bases and there are oblong holes about $6\frac{1}{2}$ feet up (fig. 8); the north arch has its bases hacked about and there are separate mortices some 5 and 8 feet respectively from the ground. Presumably another screen crossed the east tower arch with the quire stalls stretching beyond.

As a rule we get little help as to the arrangements of screens from

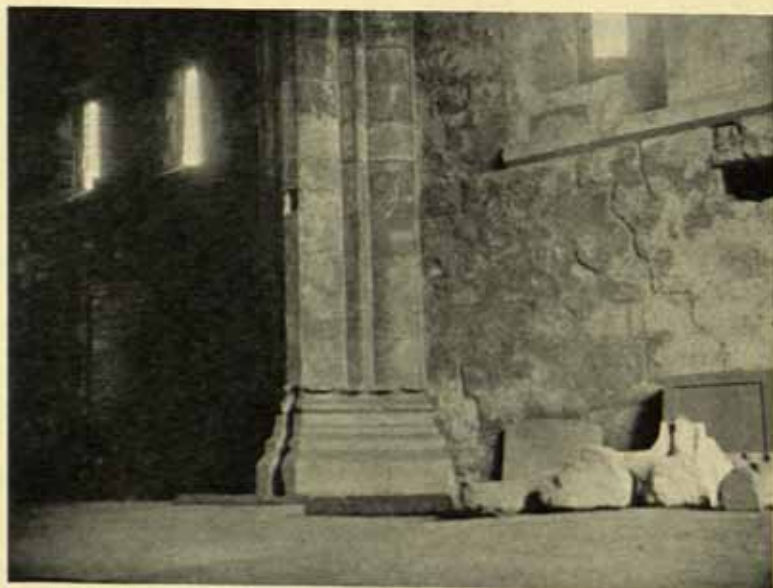


Fig. 8. Torphichen—South transept arch showing channelling for screen.

mediaeval documents. Bower, however, gives an interesting account of the plundering of the pilgrimage shrine at Whitekirk during the burnt Candlemas of 1356.¹ An English freebooter jumping on to the high altar at Quhytkirk snatched a ring from the statue of the virgin and violently broke off a finger. Then, placing his foot on the head of the image, he got up into a loft (*solarium*) above and stole certain valuables deposited there for safety, which he threw down to accomplices in the quire (*in choro*). Unfortunately the present building is about a century later; the east end has the not uncommon Scottish peculiarity of no east window (or only a tiny one high up), but no gallery of any kind. Apparently the church that existed in the fourteenth century had some

¹ *Scotichronicon*, Fordun and Bower, ed. Walter Goodall, 1759, lib. xiv. cap. xiv. vol. ii. p. 355.

sort of triforium crossing the east end, or possibly that part was double with a roof across half-way up, as may still be seen at the Norman church of Compton, near Guildford. The solarium can hardly have been any sort of pulpitum or rood loft, as when the scoundrels were leaving the chancel (*cancellarium*) there suddenly fell from above an image of the crucified, as if to avenge his mother, and the ringleader received a mortal injury. There can be little doubt that it was the rood that fell down; very likely it was suspended from the chancel arch.

Some of the finest of English screens are post-Reformation work, particularly at Oxford and Cambridge. In Scotland we have very few. At Falkland Palace the antechapel is partitioned off by a fine seventeenth-century screen, displaying panels below and turned balusters, delightfully varied, above. The character is entirely classic. In St Olaf's Church at Kirkwall is a screen formed of carved cornices and panels in relief made up from the episcopal gallery erected in the cathedral by Bishop George Graham in the reign of Charles I.; but these seem to stand nearly alone.

Scottish church screens are few. Even if only slight traces be counted the total hardly exceeds forty or fifty. In England the corresponding number must run far into the thousands. At least half her mediæval churches retain some memory of screens. But all these naturally fall into a few obvious groups, while the scanty surviving Scottish screens are so miscellaneous in character that they obstinately refuse to be classified. In both countries, however, it is clear that the screen and not the altar was by far the most conspicuous feature of a mediæval church or chapel, whether parochial, monastic, cathedral, collegiate, academic, or domestic.

This is not without a certain appropriateness, for while an altar of some sort is the common property of almost every faith in the world (except Islam) the rood loft and screen are wholly and exclusively Christian. They were developed purely in the Christian service; they have no analogy in the fabrics of any other religion on earth.

General help from Professor Hamilton Thompson and James S. Richardson is gratefully acknowledged. I am also much indebted for information about Fowlis Easter to our fellow, Mackenzie Shaw, W.S., who remembers the rood loft as a boy, and to Rev. John Burr, of Bowden, who was actually present when the work was destroyed in 1889. I am indebted to another Fellow, Leslie Hunter, for useful information.

IV.

DIE INTERCHANGES BETWEEN SCOTTISH MINTS.

BY C. H. DAKERS, F.S.A. SCOT.

Mediæval Scotland was not rich and consequently there was no great demand for a metallic medium of exchange. What demand there was, was met to a great extent by importing foreign money, largely that of England. This may be clearly seen in such hoards as the Montrave, in which the English outnumbered the Scottish coins in the proportion of about 20 to 1.¹ The bulk of the Scottish portion of this hoard, moreover, dates from the end of Alexander III.'s reign when the long-single-cross coinage was struck; which coinage is the commonest of all the Scottish series. In the circumstances it is not surprising that the output of the Scottish mint should have been scanty, and that the specimens which have survived to our times should serve to show how few dies there were actually in use. Even the extensive series of the Alexander III. long-single-cross pennies, which mark the most prosperous period of Scottish mediæval history, can frequently be identified as being from the same dies as those illustrated in Burns. Scottish numismatists are peculiarly fortunate in that Burns published his invaluable work at a time when illustrations could be properly and exactly produced, and in that he had a patron who could afford to have them so done. As a result, the student is able to make a study of die impressions with comparative ease. Often he can establish the exact identity of his own coins with those in Burns's plates.

The subject of the transfer of dies from mint to mint is an interesting one. There are a number of possible explanations for these transfers: (a) The movements of the King and Court; (b) a tour of the various mints made by the chief moneyer; (c) the opening or reopening of a mint and the supply from another mint of dies already used there; (d) the closing of a mint and the return of useable dies to the issuing office.

I have not thought it worth while considering the suggestion that coins with the names of different mints were struck at the capital, or elsewhere than at the towns whose names they bear. As there were so many issues which were confined wholly or in part to Edinburgh, it is

¹ So far is this from being exceptional that the proportion is often nearer 30 to 1.

extremely unlikely that dies with the names of the provincial mints would be sunk if they were not actually to be used at the places indicated. Nor have I attempted the impossible task of tracing the transfer of reverse dies, though some altered or partially altered reverse dies are known. What I have done is to note cases of the transfer of obverse dies from one mint to another, and I now submit a number of such instances which have come to my notice.

The first example of a transfer of an obverse die given by Burns is that of an Alexander III. long-double-cross penny. The die in question is that of the obverse of figs. 89 and 89A,¹ the reverses of which he reads as **WĀ(LTĒR) BĒRWIH**² and **RĀINĀLD DĒ PĒR**, respectively.³ This transfer would seem to be most easily accounted for by (c), as the mint of Perth, active under William the Lion, did not (so far as we know) strike during the reign of Alexander II., under which we must include the coins of small module with the name of William.⁴ The transferred die is Style I. of Burns, so that a die appears to have been sent to Perth on the reopening of that mint, which continued to strike all three styles of head. Berwick being the principal mint would be best able to spare the necessary machinery to give Perth a start.

There follow two curious series, namely, the obverse of fig. 119, which is associated with reverses of **DVN**, **MVN**, and **FRĒS**, and the obverse of fig. 127, which is associated with the same three reverses, and in addition with a reverse of **GLA**.⁵ In each case the moneyer is Walter. All these mints, with the exception of **MVN** (Montrose), which had the smallest output, are represented also in the earlier issues, so that we cannot accept the view that a moneyer was sent on tour to open new mints. The only explanation which seems reasonable is that Walter was the King's moneyer, and that either on a royal progress through the principal towns of the kingdom (a), or when sent on a special visitation to inspect the mints (b), he struck the coins of these mints with his own obverse die.

With Class V. of the long-double-cross series the naming of mint towns comes temporarily to an end, except for a revival in the reign of John Baliol, and then only in the case of St Andrews.

All the money of Robert I. is without mint-names, and there is only one type of reverse—that is, mullets of five points—which is probably from the mint of Edinburgh.

¹ Throughout this paper the abbreviation "fig." refers to the plates in Burns.

² I have a fuller specimen which shows that the name is **WĀRTĒR**.

³ *Coinage of Scotland*, vol. I. pp. 126 f.

⁴ *Ibid.*, figs. 66b ff.

⁵ *Ibid.*, pp. 146 ff.

Aberdeen begins to strike again in the reign of David II., but not with the groats of his first type, which are ornamented with rosettes in the legend, or with pellets or rosettes in the angles of the tressure. Burns illustrates (fig. 255) an Aberdeen groat with the plain tressure, and states that two Edinburgh groats with the same obverse die were found in the Montrave hoard. I have also a specimen with the obverse of fig. 262B (Edinburgh) and the reverse of fig. 276 (Aberdeen). This suggests that, after being used in Edinburgh, the dies were sent to Aberdeen on the reopening of the mint there. Aberdeen ceased to strike after the second variety of the intermediate head, when the dies may have been returned to Edinburgh, as I have a mule with the obverse of fig. 275 (Aberdeen) and an Edinburgh reverse. This would be an instance of the fourth of my possible explanations (*d*).

In the reign of Robert II., when Perth and Dundee ¹ reappear as mints, Burns notes two interchanges of dies, namely, a half-groat with an obverse as fig. 326 (Edinburgh) and a reverse as fig. 326A (Dundee), and a penny with an obverse as Burns's No. 6 (Edinburgh) and a reverse as his No. 13 (Perth). Since Perth and Edinburgh seem to have had a more or less equal output in this—and the earlier part of the next—reign, it is difficult to decide which was the principal mint, but the muled Dundee-Edinburgh half-groat cited above would point to Edinburgh as the place from which the dies were supplied. I have recently been fortunate enough to secure three half-groats which form an interesting combination. The obverse is in each case from the same die as fig. 330A with a small B behind the head. The first of these half-groats is of Edinburgh, the second of Perth, and the third of Dundee. This must, I think, afford an example of my second explanation (*b*), as it seems clear that the King's moneyer Bonachio, Bonagius, or Bonage took his die in person from mint to mint in process of re-starting them.

It is more difficult to theorise on the die-transfers during the reign of Robert III. The sequence of the types here is not regular; while Edinburgh struck all the coins of the plain and pellet-pointed tressure types, the earlier issues of the trefoil-pointed tressure groats are exclusively of the Perth mint. The first example given by Burns of the interchange of dies is that of the groats fig. 373c (Edinburgh) and fig. 373d (Perth), which have a common "round-faced" obverse. This obverse belongs to the earliest type of trefoil-pointed tressure groats struck by Edinburgh. It may, therefore, have been sent from Perth as a model for the Edinburgh mint, when the latter changed its type after discontinuing the pellet-pointed issue—probably on the death of Bonagius,

¹ That is, if DVN on the coins of Alexander III. is taken to be Dundee.

whose particular type (the Bonage groat) had the pellet-pointed tressure.¹ In the case of Aberdeen and Edinburgh there seems to have been some confusion in the issuing of dies, for the Edinburgh groats Burns's 41 i and 41 j (fig. 401B) both have an obverse with the characteristic crescent-stops of Aberdeen. The confusion seems to have been rectified later, as this obverse die appears again with its correct reverse at Aberdeen (fig. 401). Another groat (fig. 401D), however, has an obverse which was originally made for its correct reverse (with : stops) of Edinburgh and later was transferred to Aberdeen, where the points were changed to crescents in such a slipshod manner as to obliterate the initial cross and at the same time leave the last group of pellets before **SCOTTOR** untouched (fig. 401E). This carelessness in the mint reflects the chaotic state into which the currency was falling. The reign opened with a series of well-struck groats with their halves, pennies, and halfpence, and closed with barbarously executed groats of light weight. Very few of these light groats have survived, and Burns gives no example of the transfer of dies such as we might have expected on the closing of the Perth mint and the opening of a new one at Dumbarton.

A further series of interchanges appears in the groats of James I. The first example is that of an obverse die used at Linlithgow (fig. 464) which belongs to the first variety of the fleur-de-lis groats. It would appear to have been returned to Edinburgh on the change to the second variety and to have been found too good to be discarded, since it has been used for an Edinburgh groat (fig. 473) which is a mule, having a reverse of the newly issued second variety. The same thing has occurred in the case of fig. 475, an Edinburgh groat of the second variety, the obverse die of which seems to have been returned from Perth (fig. 490A). This was the last Perth groat with the usual type of lis-and-saltire stops.

We come next to a more complicated transfer. Burns says: "In the introduction of crescents into the ornamentation the Stirling and the related Perth fleur-de-lis groats of the second variety resemble the Robert III. groats of Aberdeen . . . strongly suggesting that during what appears to have been a suspension of the Aberdeen mint under James I. the moneyers from Aberdeen may have been placed in charge of the Stirling and Perth mints."² I agree with this theory, but consider that these mints were taken over successively. Subsequent to the return to Edinburgh of the die of fig. 490A the Perth mint was taken over by the Aberdeen die-sinkers. But after the striking of the groats fig. 490B,

¹ Since writing the above I have acquired a groat with the obverse of fig. 370D but with its correct reverse of Perth; that is saltire and pellet stops. The Edinburgh groat 370D has a curious reverse with large lis stops which does not belong to this obverse.

² *Op. cit.*, vol. II, p. 24.

it was closed and the dies transferred to Stirling, where groats (fig. 491) were struck from the same obverse die and the issue of crescent-stopped groats continued. Perth, as far as we know, suspended work at that period. It is not represented in the third and fourth issues of the fleur-de-lis groats nor in the first issue of the crown-and-pellet groats.

During the reign of James II., while the third variety of the fleur-de-lis groats was being struck, the mints of Stirling and Linlithgow were both closed. We have an example of my fourth explanation of interchange (*d*) in the re-use of the obverse die of a Linlithgow groat (fig. 502) at Edinburgh (fig. 501). I have also in my collection a groat of this issue struck at Edinburgh, which has on the obverse the large lis stops (fig. 503) and on the reverse the crown initial-mark, which appears only on the Stirling groats. This suggests that a pair of Stirling dies was returned to Edinburgh and furbished up for continued use there.

Edinburgh is the only mint known to have struck the fourth (and last) variety of the fleur-de-lis and the first variety of the crown-and-pellet groats.

The second issue of the crown-and-pellet groats provides us with an example for which it is less easy to account. There is a Roxburgh specimen (fig. 548) of the second type of these groats, and the same obverse die as was used for the Roxburgh groat appears again in use at Edinburgh (fig. 549A) and Perth (fig. 549). Burns, who examined the coins carefully, was of opinion that of the three striking the Roxburgh one is the clearest and must be the earliest.¹ I think that we have here a case covered by the fourth of my explanations (*d*)—the moneyer following the King and Court to the siege of Roxburgh and sinking special dies. Unfortunately while the King, with characteristic Stuart interest in science, "more curious than became the majesty of ane King did stand near hand by quhair the artylliarie were dischairged his thigh bone was dung in tuo by ane peice of ane misframed gune that brak in the schutting . . . and died hastilie thereafter." The castle was, however, taken, and both it and the town were razed by the Scots. It is probable that no more dies of this type were made after the death of the King, and that, in using up those that already existed, this obverse was employed at Edinburgh and Perth, the latter mint being finally closed after this issue.

Berwick was returned to Scotland in 1461, and its series of coins under James III. begins with a groat (fig. 570A) from the same obverse die as the Tod and Levingstoun Edinburgh groat (fig. 568). It seems probable that this die, which is found in conjunction with three Edinburgh reverses, was sent down to Berwick when the coinage there was re-started. The

¹ *Coinage of Scotland*, p. 87.

question of the half-groat of Berwick illustrated by Burns as fig. 561A is not so easy to answer. It is curious that two of the known half-groats of the first and second series of the six-pointed mullet groats should be of Berwick and that only one Edinburgh¹ specimen should have come to light. Scottish half-groats are, however, so rare that it is difficult to theorise about them. Indeed in the Perth hoard,² while the English groats numbered 70 and the Scottish 336, there were 183 English half-groats as against only 18 Scottish ones. Even so, 12 half-groats of James II.'s second variety (crown and pellets) gave us two mints unknown to Burns—Aberdeen and Perth.³ The explanation of the smallness of the issue of half-groats, as such, lies, I think, in the fact that the James II. crown-and-pellet groats were valued at double the amount of the fleur-de-lis series which preceded them. The latter had not been withdrawn, but kept that proportionate value when the money was cried up or down.⁴ Thus, when we say that 336 groats were found in the Perth hoard, we are including coins struck as groats but circulating as the halves of later issues. On that hypothesis there would be 112 fleur-de-lis groats to be subtracted from the groats in the Perth hoard and added to the real halves, making a total of 130 halves. This hoard, it should be added, gave us nothing new in James III. half-groats.

In the second series of six-pointed mullet groats Berwick uses two obverse dies each of which appears also with several reverses at Edinburgh. These are fig. 588 (Edinburgh) with a crown of five fleur-de-lis, and fig. 591 (Edinburgh) with a crown of three (Berwick, figs. 588A and 593). There is, in fact, only one Berwick groat (fig. 589) which has an obverse which does not appear also for Edinburgh. The Berwick groat last mentioned is also of a distinctive style,⁵ and is the commonest of the series. It would appear that, so far as the issue of groats was concerned, either Berwick had to depend for the most part on used dies sent down from Edinburgh, or the Edinburgh and Berwick mints were worked alternately by certain of the moneyers.

Berwick was lost again in 1483, while Aberdeen reopened to strike the three-quarter-face-left crown-and-pellet groats of James III.-IV. As might be expected, Aberdeen begins working with an obverse die that had been used at Edinburgh (fig. 637) and strikes two groats with this obverse (fig. 645).

¹ See *Proceedings*, vol. lvi. (1921-2), p. 324. The five-pointed mullet half-groats are of Edinburgh only.

² *Num. Chron.*, 1921, pp. 294 ff.

³ A specimen from the Aberdeen mint has been published in 1905 (*Proceedings*, vol. xl. (1904-5), p. 14).

⁴ Their continued use as half-groats may account for the very poor condition of the majority of specimens.

⁵ Perhaps the die was made locally.

This is, with a single exception, the last occasion on which the name of a provincial mint appears on the Scottish coinage. The exception is the use of Stirling for the striking of bawbees during the reign of Mary. It is possible that there may have been interchanges of obverse dies in the case of these bawbees, but they are an extensive issue and nothing of the kind has yet been noticed.

Here my list of die transfers ends. Although I cannot claim to have produced any fresh material, I have at least brought all the available material together; and it is interesting to note that from David II. to James IV. practically every issue in which the provincial mints have taken part has shown instances of such interchanges. The solitary exception is the Edinburgh-Aberdeen-Dumbarton issue of light groats of Robert III., the rarity of which makes their study difficult. In suggesting explanations I have broken new ground and have, I hope, thrown a little fresh light on the workings of the Scottish mint.

MONDAY, 10th February 1936.

SIR GEORGE MACDONALD, K.C.B., President, in the Chair.

It was unanimously decided, on the motion of the Chairman, that the following Address should be sent to His Majesty the King:—

UNTO THE KING'S MOST EXCELLENT MAJESTY.

May it please Your Majesty:

We, the President and Fellows of the Society of Antiquaries of Scotland, incorporated by Royal Charter, most respectfully present our humble duty to Your Majesty.

Only a few short months have elapsed since Your Majesty's illustrious Father, our beloved Sovereign and Patron, King George the Fifth, was graciously moved to express His appreciation of our heartfelt wish that He might long be spared to rule over a happy and contented People. Already, by the inexorable decree of a Providence Whose ways are past finding out, the gates of death have been opened for Him, and He Who toiled so ceaselessly and so strenuously for the welfare of His subjects has passed to His eternal rest. Conscious as we are of the grievous loss which the Nation and the Empire have sustained, conscious, too, of a very real sense of personal deprivation, we nevertheless cannot but think first and foremost of Those to Whom the shadow that has fallen on the land must seem still deeper and more abiding. We therefore venture to offer our sincere sympathy to Your Majesty, to Queen Mary so sorely stricken, and to the whole Royal House, commending all to the infinite goodness of Him Whose rod and staff are a never-failing comfort.

At the same time, happy in the knowledge that, as with the golden branch of which Virgil tells, *primo avulso non deficit alter*, we beg leave to be allowed to tender to Your Majesty our dutiful congratulations on Your Majesty's Accession and with them a fervid assurance of our loyalty and devotion to Your Majesty's Person and Throne. It is our earnest prayer that Almighty God may continue to bless Your Majesty with health and strength and with a rich abundance of that wisdom in whose right hand is length of days.

Signed in the name and by the authority of the Society of Antiquaries of Scotland, in general meeting assembled, and sealed with the common seal of the Incorporation this tenth day of February in the year of our Lord One thousand nine hundred and thirty-six.

GEORGE MACDONALD, *President*.

THOMAS YULE, *Vice-President*.

D. P. MACLAGAN, *Secretary*.

The following reply to the Address has been received by the Secretary:—

SCOTTISH OFFICE, WHITEHALL,
March 1936.

SIR,—I have had the honour to lay before The King the Loyal and Dutiful Address of the Society of Antiquaries of Scotland on the occasion of the lamented death of His late Majesty King George the Fifth and have received the King's Commands to convey to you His Majesty's grateful Thanks for the assurances of sympathy and devotion to which it gives expression.—I am, Sir, your obedient Servant,

(Signed) GODFREY P. COLLINS.

A Ballot having been taken, the following were elected Fellows:—

- Mrs JANE INGLIS CLARK, Beaumont Lodge, 29 Greenhill Gardens, Edinburgh, 10.
Rev. I. HENRY CLYDE, B.A., Ross Memorial Manse, Dalmuir, Glasgow.
G. E. R. COLDSTREAM, W.S., 2 Walker Street, Edinburgh, 3.
Rev. JAMES HENRY REED, Wesleyan Manse, 142 Church Road, Turfontein, Johannesburg, South Africa.
WILLIAM HENRY WOOD, Missioner to the Deaf, 15 Kilburn, East Newport, Fife.

The following Donations to the Museum were intimated, and thanks voted to the Donors:—

- (1) By Miss MARIA STEUART, 2 Lynedoch Place, Edinburgh.

Luckenbooth Brooch of Silver, of the crowned-heart variety, with T M and LOVE ME EVER ELS(E) NEVER, inscribed on the back.

Livery Button of Silver, bearing the Buccleuch coat of arms, date about 1830.

- (2) By A. FRANCES STEUART, 2 Lynedoch Place, Edinburgh.

Five wire-headed Pins, taken from Liddesdale vouchers (*circa* 1670) belonging to the Buccleuch family.

- (3) By Mrs COLLINS, 9 Fitzherbert Terrace, Wellington, New Zealand, and her daughter, Mrs MILSOM, The End House, Malcolm Road, Wimbledon, London.

Three ornaments of Silver (figs. 1 and 2) from the Scoto-Viking hoard found at Skaill, Orkney, in 1858, consisting of (1) Neck-ring formed of six plaited wires hammered together flat towards the ends, each of which terminates in a hook (fig. 1). The outside of the

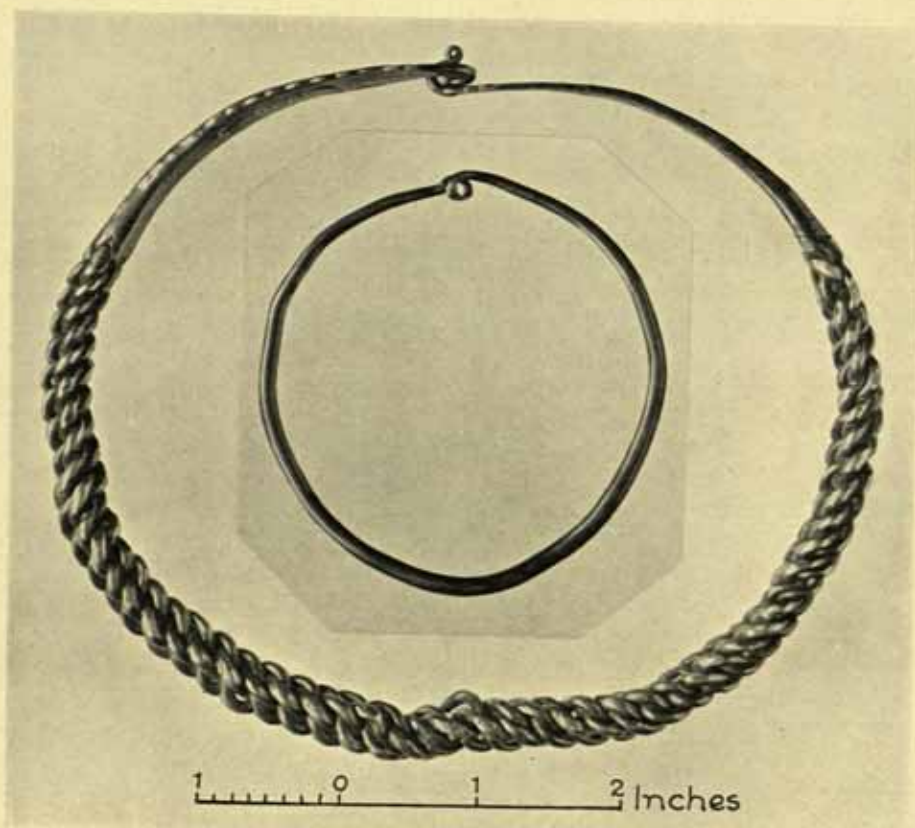


Fig. 1. Silver Neck-ring and Armlet from Skail.

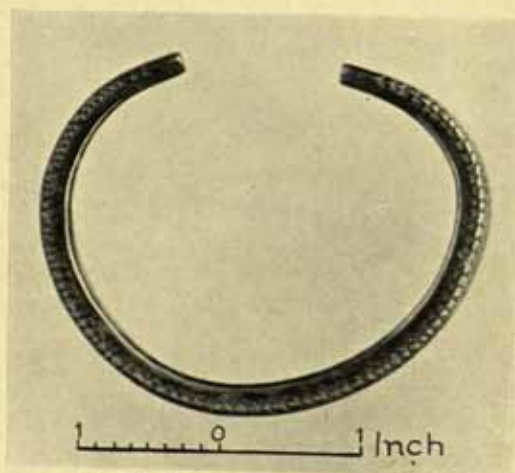


Fig. 2. Silver Armlet from Skail.

flattened ends is decorated with two rows of punched triangular designs, with three pellets in the field. The ring is broken at the centre and now measures $5\frac{5}{8}$ inches by $4\frac{3}{4}$ inches in external diameters; (2) Armlet formed of a thick wire, measuring $2\frac{3}{4}$ inches in average external diameter, one end forming a loop and the other a hook (fig. 1); and (3) penannular Armlet, measuring $3\frac{1}{16}$ inches in greatest diameter, the ring of quadrangular section and the periphery decorated by four lines of triangular punch-marks with a pellet in the centre (fig. 2).

(4) By Mrs L. MACDONALD, 26A High Street, Kirkcaldy.

Silver object, possibly the point of a lace, of tubular form, with an eye at the thick end, measuring $2\frac{3}{16}$ inches long, found about eighty years ago at Jarlshof, Shetland.

(5) By Mrs MONTAGNINI, 15 Scoonie Terrace, Leven, Fife.

Pair of oval Shoe Buckles, of German Silver.

(6) By JOHN R. FORTUNE, Corresponding Member.

Leaf-shaped Arrow-head of reddish Chalcedony, imperfect, measuring $\frac{7}{8}$ inch by $\frac{3}{4}$ inch; lop-sided Arrow-head, imperfect, measuring $1\frac{3}{16}$ inch by $\frac{11}{16}$ inch; two scrapers, measuring $\frac{3}{4}$ inch by $\frac{9}{16}$ inch and $1\frac{5}{8}$ inch by $1\frac{5}{16}$ inch; Knife, flat on one side, and dressed on both edges, measuring 2 inches by $\frac{3}{4}$ inch; two triangular Tranchets, measuring $1\frac{5}{8}$ inch by $1\frac{11}{16}$ inch, and $1\frac{1}{4}$ inch by $1\frac{11}{16}$ inch, the second imperfect; and four worked objects, all of grey and brownish Flint; a hollow Bronze Mount, the lower part tubular with two rivet holes in the back; the upper part spheroidal in front with two wing-like projections behind, is decorated on the face with two oval pellets, with curved lines springing from a central stem between them (fig. 3). All found by the Donor on Airhouse, Oxton, Berwickshire.



Fig. 3. Bronze Mount.
(+).

(7) By Miss A. L. RANKIN, 54 Hogarth Road, Earl's Court, London.

Wooden Casket covered with tooled leather, most of which, on the top, has worn away. The box is bound across and lengthwise by three thin brass straps. The cross-straps, which are carried right round the casket, are hinged at the back and front of the lid, the depending parts on the front forming three hasps, that on the left being amissing; the longitudinal straps are carried down the ends and along the bottom of

the box only. There are three large hollow bosses on each of the straps on the lid, and two on each of those at the ends. In addition there are two more straps, with three large bosses, fixed on the sloping ends of the lid. The corners of the box are bound with angle-straps, and round the edge of the lid is another, scalloped on the top side. In the centre of the front is the lock with key plate, and on each side a plate with a perforation for a pin, probably with a head, which turned to fix the hasp. On the top of the lid is a hinged handle. It is lined on the inside with red leather. The casket measures $5\frac{7}{8}$ inches by $4\frac{1}{2}$ inches by $2\frac{3}{4}$ inches, and bears the characteristics of an early sixteenth-century Scottish casket. It is said to have been given to one of the Lord Borthwick family by Mary Queen of Scots, as a marriage present.

(8) By M. B. DUFF, Chartered Civil Engineer, Edinburgh.

Ring of Shale of D-shaped section, measuring $1\frac{3}{4}$ inch in diameter, and $\frac{7}{16}$ inch thick, found 8 feet below the surface, and 12 feet from the burn, in excavating part of the Quarrel Burn Reservoir, Silverburn, Midlothian.

(9) By ANDREW WALTON, Edinburgh.

Stone Axe, $6\frac{1}{4}$ inches by $2\frac{7}{8}$ inches by $1\frac{1}{2}$ inch, from Magus Muir, Fife.

The following Purchase for the Museum was intimated:—

Cast of the shaft of Cristin's Cross (fig. 4), which now measures 6 feet 10 inches in height, 11 inches in width, and $4\frac{1}{2}$ inches in thickness at the base, and tapers to $6\frac{1}{2}$ inches and 3 inches at the top. The head is wanting and the shaft is broken across the middle. On the front, at the top, are the remains of an inscription, MA'T/ ET VX/ OREI/ VS, with three niches below containing an erect figure in the attitude of prayer, a pair of figures embracing, and a bearded warrior on horseback, facing left, with a spear under his right arm and a sword at his left side. Below all is a casket showing its metal mountings. The greater part of the back is occupied by an interlaced foliaceous scroll, with two stems springing from the attenuated bodies of two beasts. Beneath is a galley with the sail furled, and above, a panel with a plait of eight cords. On one side is a plait of four cords and on the other a foliaceous scroll with the leaves springing alternately from each side of a single stem. When published in 1873 by Captain White (*Archæological Sketches, Kintyre*, p. 96), the inscription was read HE(C)/ EST/ CRVX/ CRIS/TINI/

MA'T (or D)/ ET VX/OREI/ VS, but the upper five lines have since scaled off. From Kilkerran, Campbeltown, Argyll.



Fig. 4. Cristin's Cross, Kilkerran, Argyll.

The following Donations to the Library were intimated, and thanks voted to the Donors:—

- (1) By F. G. SIMPSON, M.A., *H.F.S.A.Scot.*, I. A. RICHMOND, M.A., *F.S.A.*, *F.S.A.Scot.*, R. G. COLLINGWOOD, M.A., *F.S.A.*, *F.B.A.*, *F.S.A.Scot.*, JAMES MCINTYRE, K. St JOSEPH, B.A., and R. HOGG, the Authors.

Report of the Cumberland Excavation Committee for 1934. (Reprinted from the Cumberland and Westmorland Antiquarian and Archaeological Society's *Transactions*. Vol. xxxv. New Series.) Kendal, 1935.

(2) By F. GERALD SIMPSON and I. A. RICHMOND, the Authors.

The Turf Wall of Hadrian, 1895-1935. (Reprinted from the *Journal of Roman Studies*, 1935.)

(3) By Sir GEORGE MACDONALD, K.C.B., LL.D., President.

The Advocate's Close: the Tale of a Tenement. By John K. Laidlaw, S.S.C. Edinburgh, 1927.

(4) By THE SOCIETY, Dunblane.

The Society of Friends of Dunblane Cathedral. Vol. ii., part 2. 1935.

(5) By R. N. de PINTO, F.S.A.Scot.

Banff and Neighbourhood. Banff, 1879.

Handbook of Building Clauses from the Edinburgh Municipal Acts and Orders, 1879-1901. Edinburgh, 1902.

Corporation of Squarmen; Short Historical Account. By J. S. S. (Reprinted from *The Scots Year Book*, 1935-36.)

(6) By Rev. JOHN STIRTON, M.V.O., D.D., F.S.A.Scot., the Author.

The Chantry Chapel at Glamis. Forfar, 1935.

(7) By CH. SCHLEICHER, F.S.A.Scot., the Author or Joint Author.

Curieux Fragment de Mandibule d' Ursus. Le Mans, 1933.

A propos du curieux fragment de Mandibule présenté par MM. le Dr Ch. Morel et Ch. Schleicher. By le Dr Ch. Absolon. (From the *Bulletin de la Soc. Préhist. Française*, 1934.)

Un Centenaire de Boucher de Perthes, 1832-1932. Par Paul de Givenchy, suivi de: Jacques Boucher de Crèvecœur de Perthes, 1788-1868. Notice par Charles Schleicher. Le Mans, 1932. (From the *Bulletin de la Soc. Préhist. Française*, 1932.)

Un Cromlech à Paris et la légende de Sainte Geneviève (bergère). Extract from the *Congrès Préhistorique de France*. X^e Session, 1931.

(8) By the ARCHÄOLOGISCHEN INSTITUTS DES DEUTSCHEN REICHES.
Jahresbericht für das Haushaltsjahr, 1934-35.

(9) By E. E. EVANS, M.A., F.S.A., and O. DAVIES, M.A., the
Authors.

Excavation of a Chambered Horned Cairn at Ballyalton, Co. Down.
(Reprinted from the *Proceedings of the Belfast Natural History and
Philosophical Society*, 1933-34.)

Excavations at Clonlum Small Cairn, Co. Armagh. n.p., n.d.

(10) By M. l'ABBÉ LEROQUAIS, the Author.

Un Livre d'Heures Manuscrit à l'usage de Macon. (Collection
Siraudin.) Macon, 1935.

(11) By The Most Hon. THE MARQUESS OF BUTE, K.T., F.S.A.Scot.

Rothsay Town Council Records, 1653-1766. In two volumes.
Printed for private circulation, 1935.

(12) By JOHN MOONEY, F.S.A.Scot., the Author.

St Magnus, Earl of Orkney. Kirkwall, 1935.

The following Purchases for the Library were intimated:—

Kilmuir Easter: the History of a Highland Parish. By Helen
Myers Meldrum. Inverness, 1935.

The Princes Street Proprietors and other Chapters in the History of
the Royal Burgh of Edinburgh. By David Robertson, LL.B. Edinburgh,
1935.

Origins and Development of Applied Chemistry. By Professor J. R.
Partington, M.B.E., D.Sc. London, 1935.

The following Communications were read:—

I.

THE DWARFIE STANE, HOY, ORKNEY: ITS PERIOD AND PURPOSE. BY CHARLES S. T. CALDER, A.R.I.A.S., F.S.A. SCOT. WITH A NOTE ON "JO. BEN" AND THE DWARFIE STANE. BY SIR GEORGE MACDONALD, K.C.B., PRESIDENT.

During the summer of 1935, when engaged on work of investigation for the Royal Commission on Ancient Monuments, I had an opportunity of inspecting, along with Professor Bryce, the curious monument in the island of Hoy, well known as the Dwarfie Stane. It is a huge isolated



Fig. 1. The Dwarfie Stane from the north-west.

block of old red sandstone (fig. 1), lying one mile and a half south-south-east of Quoyness, in the valley between the Ward Hill of Hoy and the Dwarfie Hamars. As an ancient but baffling feature of interest, it had been described again and again long before Sir Walter Scott enhanced its familiarity and glamour by the use he made of it in "The Pirate."

The immense mass of rock rests broadside-down on the slopes, 300 yards north of the Hamars. Its shape is roughly that of a rectangular prism, broken here and there, and also much weathered through long ages of exposure, particularly on the top where the forces of disintegration and destruction have been aided by the peculiar stratification of

the whole. A cavity in the west side has been laboriously hollowed out from the solid by human agency (fig. 2). This has clearly been done with a definite object, for the space has been subdivided into three parts—a central passage or corridor, and a recessed cell on either side.

The general dimensions have frequently been stated but, in the majority of instances, with a varying amount of error. The stone measures 28 feet in length and 14 feet 8 inches in breadth on the south,

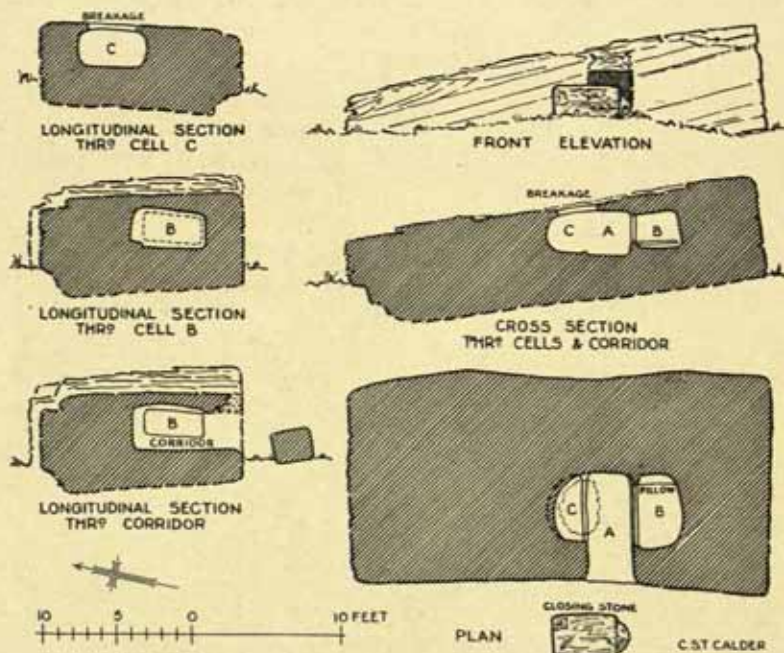


Fig. 2. The Dwarfie Stane: Plan, Sections, and Elevation.

decreasing to 13 feet on the north, while the height also decreases from 6 feet 8 inches on the south to 3 feet on the north, where the lower edge is sunk below the ground. The difference in height is accentuated by the angle of repose which, to judge from the top of the stone, has an inclination of 9 or 10 degrees from the horizontal. That the rock was already in its present position before the hewing was begun is proved by the fact that the floor of the hollowed-out portion is on the level, and confirmation might be found in the lop-sided impression produced by the position of the entrance. The south jamb is only 9 feet distant, but the north jamb is 16 feet distant, from the ends to which they are respectively nearest. It was probably the need for providing convenient

headroom that led to the doorway being placed nearer to the higher end rather than in the middle. The opening (fig. 3) is 2 feet 10 inches wide by 2 feet 4 inches high, while its sill rises 5 inches above the ground. The interval between the soffit of the lintel and the top of the stone has been about 1 foot 8 inches, but the front part of it has been destroyed and wasted away. The passage (A) penetrates for a distance of fully $2\frac{1}{2}$ feet before reaching the lateral cells (B and C). Thereafter it extends for 5 feet or so farther between them as a corridor, the roof of which is 2 feet 11 inches above the floor.

The southern cell (B) appears to be the more important, being comparatively elaborate in execution and exhibiting detail that is entirely absent in its neighbour. It is entered through a rectangular opening 4 feet 1 inch wide by 1 foot 8 inches high, which has slightly rounded corners and is framed within two jambs, an up-rising kerb, and a quasi-lintel, the last $1\frac{1}{2}$ to 3 inches lower than the ceiling of the corridor. The inside projection of the east jamb is 8 inches, as against $2\frac{1}{2}$ inches of the one on the west. The kerb rises 1 foot on the outside, is 3 inches broad on the top and drops 5 inches in a curve to the floor of

the cell, which is therefore 7 inches higher than the floor of the corridor. The cell roof, which is continuous with the soffit of the lintel, has an upward and eastward trend, attaining a maximum height of $2\frac{1}{2}$ feet above the floor, whereas the height at the west is only 2 feet 1 inch. The walls converge slightly towards the roof and, with an allowance for a varying degree of curvature, the cell has a maximum length of 5 feet and a maximum breadth of 3 feet. Across the east end a low ledge of the rock, 8 inches wide, rises $3\frac{1}{2}$ inches in front above the floor, sloping up to $5\frac{1}{2}$ inches at the back. This is always referred to as a pillow for



Fig. 3. The Dwarfie Stane: Entrance and Opening to Cell B.

the inhabitant, as no doubt it was, though in a sense very different from the usual one. The opposite cell (C) is plainer. Its walls and roof are more curvilinear in outline and merge into one another gradually. It has no entrance in the ordinary meaning of that term, for it is entirely open on the side next the corridor, from which it is demarcated by nothing but a very shallow kerb, 4 inches wide, 2 inches high on the outside and 1 inch high inside, leaving a difference of only 1 inch between the floor levels as against 7 inches in the southern cell. It is approximately $4\frac{1}{2}$ feet long by 2 feet wide, but about half-way up its height of 2 feet 3 inches these dimensions are exceeded owing to the curvature.

Extending mainly over this cell, but partly over the passage, there is a rough, irregularly oval-shaped opening, the axes of which, between its broken edges, measure 3 feet 9 inches and 3 feet. In 1792 it is said to have had a diameter of 2 feet 9 inches.¹ The increase is no doubt due to subsequent wear through its being used as a means of access by visitors, whose feet have also left their mark on the well-worn kerb below. When it is first mentioned, this opening is spoken of as an "impluvium," or hole in the roof.² But there is no reason to believe that it is anything else but a breakage, or that it formed part of the original arrangement. It has usually been explained as a flue for the escape of smoke from a fire, the hearth being sometimes alleged to have been in the north cell but more often to have been in the corridor. On the other hand, there is nowhere any indication of a hearth nor any sign of the stone having been subjected to the action of prolonged heat. Besides, to say nothing of the openness of the supposed vent to inclement weather, a fire so situated would have left little or no room for living or sleeping in.

A large squared block of stone (fig. 4) with a roughly rounded projection at one end lies prostrate about 2 feet in front of the entrance. It measures 4 feet 2 inches to the shoulder but 5 feet 1 inch in extreme length, while it is 2 feet 8 inches broad by 2 feet 1 inch high. It will be immediately obvious how closely the end dimensions correspond to those of the entrance. In view of this correspondence it is suggested that the stone has been the door, the margin of clearance for its insertion being just such as might be reasonably expected.

The Dwarfie Stane was first described by "Jo. Ben," as long ago as the sixteenth century.³ For four centuries it has aroused the curiosity

¹ *Archæologia Scotica*, vol. i. p. 265.

² Barry's *History of the Orkney Islands*, Appendix VII. p. 445.

³ See Note on "Jo. Ben" and the Dwarfie Stane by Sir George Macdonald, K.C.B., *infra*, p. 230.

of successive generations of antiquaries, and the purpose it was meant to serve has been a matter of much conjecture. Legend has invariably been appealed to, the original story being that the rock was hewn out by a giant and his wife for their own accommodation. Later writers, however, realising that the bed recesses were hopelessly short for anyone of gigantic stature, have substituted for this a theory that it was the dwelling of a dwarf or the habitation of a hermit. Out of thirty-six published accounts¹ no fewer than twenty-five accept, more or less whole-heartedly, the view that it was a residence. In three others it is respectively regarded as having been either an altar or an oratory or a temple. Two authorities, Johnston² and Dietrichson³ speculate as to



Fig. 4. The Dwarfie Stane: "Door."

whether it may not have been a rock-sepulchre, the former without venturing an opinion as to its period or its category, and the latter only with some hesitation. Johnston, whose article is most informative with a wealth of minute detail, has excellent plans and appends a useful bibliography. Dietrichson assigns the monument to a time between A.D. 600 and 872, and suggests that it may be a hermitage of the Irish-Celtic Culdees, but he is himself only half convinced and is reluctant to dismiss the idea that it may represent a rock-burial.

All this I learned after my own observations had independently led me to conclude that the cells were designed to accommodate the dead and not the living. But I am prepared to go further than either Johnston

¹ *The Reliquary*, vol. ii., Bibliography, p. 101, and, in addition, *The Statistical Account of Scotland*, vol. xvi. p. 248; *Handbook to the Orkney Islands*, p. 136; *Summers and Winters in the Orkneys*, 2nd edition, p. 255; *Anderson's Guide to the Orkney Islands* (1884), p. 134; *Monumenta Orcadica*, p. 47; *The Orkney Book*, p. 179; *History of the Church in Orkney*, pp. 9, 10.

² *The Reliquary*, vol. ii. pp. 84-101.

³ *Monumenta Orcadica*, pp. 8, 9, 43, 47-49.

or Dietrichson, and to claim that the Dwarfie Stane is the first and only example in the British Isles of a completely rock-cut tomb of the late Neolithic or Early Bronze Age. It should probably be associated with the megalithic people from the south and west, and be dated to the remote and obscure period of transition between the two phases of culture I have just named. I should like to support this statement by describing later two analogies from the Mediterranean and by referring to other tombs from the intervening countries, as well as by drawing attention to certain features in some of the monuments in Orkney itself. Meanwhile Professor Bryce authorises me to say that he expressed complete agreement with me on the spot.

It should be added that legend has its part to play in connection with this explanation also. The story of a giant or a dwarf can only have arisen after the true origin of the monument had long been forgotten, and that in itself must indicate an ancient lineage. But there is something else. It is surely significant that, in all countries where megalithic monuments are found, there should be a superstitious association of giants with undisputed cairns of the Neolithic or Bronze Ages, throughout the area of distribution. Our own islands furnish many examples of "Giants' Graves" and the application of the legend to the Dwarfie Stane would seem to bring it into line with these in respect of time and purpose. Dr Duncan Mackenzie expresses his belief that the "tombs of the giants" in Sardinia had "an ethnological connection which brings them into one general context with the whole rest of the middle and west Mediterranean as well as of west Europe, and as far afield as Britain and Norway."¹

The Giant's Tomb at Molafá in Sardinia² (fig. 5) offers a close parallel to the Dwarfie Stane. In all its features except size the resemblance is remarkable. It is entirely hewn out of the sandstone rock and it has a central corridor, on either side of which is a recess, having the floor raised above the corridor level by a kerb in much the same way. Other links are the curvature of the wall surfaces and the fact that the entrance has been closed by a large stone. In a word, the analogy is complete in every essential. A second satisfactory parallel is furnished by the tomb of s'Abba Bodaga³ (figs. 5 and 6). It is probably unfinished. So far as completed, however, it shows a chamber hollowed out in a large isolated boulder, this time of granite. Only one cell seems to have been contemplated, and the suggestion has been made that the

¹ *Papers of the British School at Rome*, vol. v. p. 135.

² *Ibid.*, p. 123.

³ *Ibid.*, p. 104. I am indebted to the Council of the School for permission to reproduce fig. 6, as well as the plans and sections (2) and (3) in fig. 5.

entrance has been masked by a slab fitting into it like a door.¹ The back of the entrance has been contracted to form a slightly narrower rectangular aperture with projecting jambs, reminding one of the opening to the south cell of the Dwarfie Stane. Dr Mackenzie points out that the last feature recalls the portal hole which is so characteristic of the tombs of the giants.² A comparison of the longitudinal sections of Molafá and s'Abba Bogada (fig. 5) with that of the Dwarfie Stane is

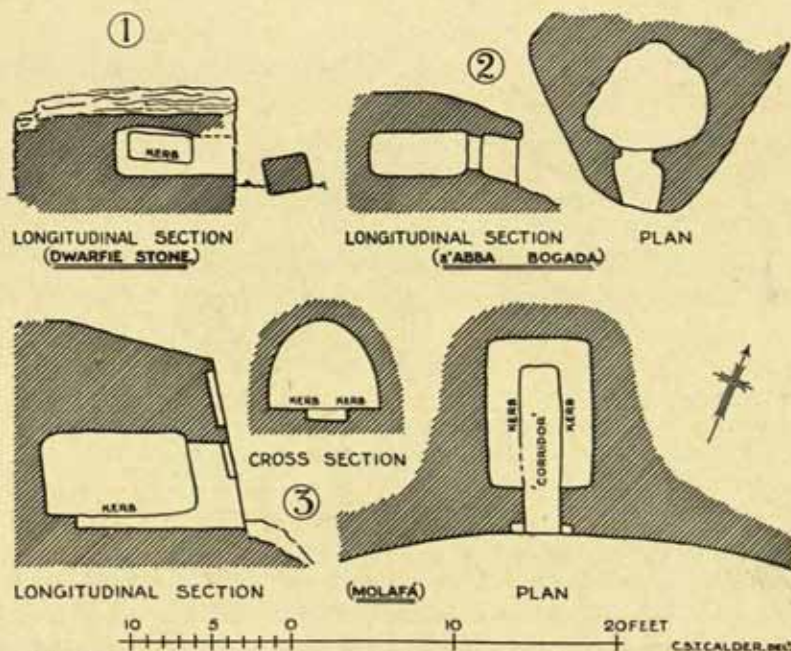


Fig. 5. (1) Dwarfie Stane: Section. (2) s'Abba Bogada: Plan and Section. (3) Molafá: Plan and Sections.

instructive. The grotesque-looking objects on the top of the tomb of s'Abba Bogada (fig. 6), it ought to be explained, are natural.

Molafá is an adaptation in rock of the built tombs of the megalithic period. These are usually constructed of stone, but many combine masonry with prepared rock-cut walls and foundations. Cairns of the latter class occur both on the mainland of Great Britain and in Ireland, serving to connect those of the Mediterranean with the Orkney monuments to which I have next to refer.

Although the Dwarfie Stane can hardly vie in real importance with such a magnificent tomb as Maeshowe, Orkney, it may be the more

¹ *Papers of the British School at Rome*, vol. v. p. 104.

² *Ibid.*, p. 104.

interesting as being absolutely unique. That the two are intimately related cannot be doubted as soon as it is realised that the Maeshowe cells (fig. 7) incorporate in masonry all the features cut in rock in the Dwarfie Stane. Thus, the entrance is of much the same character, squarish and small, and it also leads into a corridor extending right to the back; the recesses off the sides are similar, and in Maeshowe, too, the floors of two of these are raised above the corridor level by a kerb $5\frac{1}{2}$ inches high;



Fig. 6. s'Abba Bogada.

lastly, on the ground before each cell at Maeshowe lies the closing stone with which the resting-place has been sealed.

The "door" at the Dwarfie Stane is ponderous, weighing approximately a ton and a half, and the notion that it was a house door, to be opened and shut by an ordinary mortal on each arrival or departure, may therefore be ruled out. It is obvious that, once in position, it was intended to remain there. Can it be anything else but the sealing-stone of a burial chamber? When it was inserted it would extend so far into the corridor that there would be no room for a hearth, but none, of course, was necessary. Again, its bulk is so great that not only would the main entrance be sealed, but the separate opening to each cell would be blocked up to such an extent that, even after the north cell was broken into through the hole in the roof, it would be almost necessary to move the "door"

some way back before access could be had to the south cell. It is conceivable that it was levered out from behind for at least a short distance, and that it had been thus far displaced when "Jo. Ben" wrote of it as closing the entrance. For whatever reason, it has subsequently been pulled out altogether. In 1792 Principal Gordon speaks of it as being 4 feet "high," not "long," an expression which probably means that in his day it was standing on end instead of lying prostrate as it now does.¹

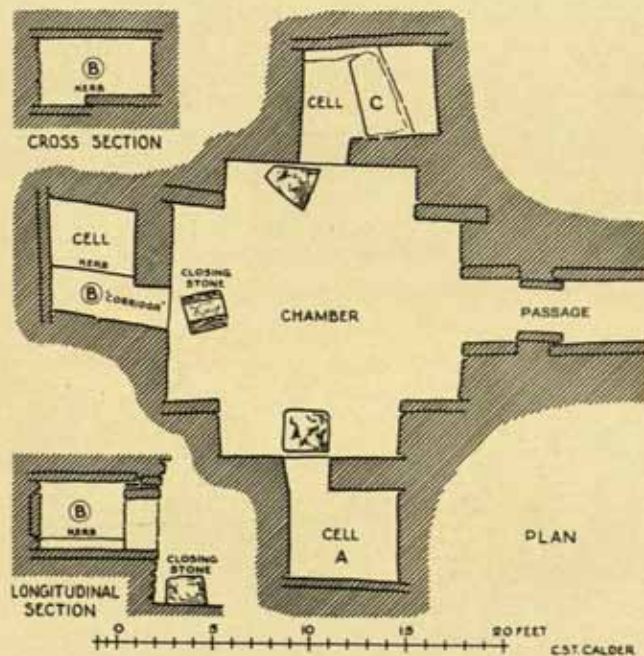


Fig. 7. Maeshowe: Plan, with sections of a cell.

May not the leverage exerted by this massive stone during its ultimate removal account for the fracturing of the forepart of the lintel? And may it not also be that the roughly rounded end is the result of chiselling in an effort to gain admission when the stone was *in situ*? Only after that had proved futile, does the line of least resistance through the roof seem to have been tried.

Both single cells and multiple cells occur in megalithic tombs and cairns, as many as twelve entering off the corridor being recorded.² I am able to cite a good example of the multiple type from the Calf of

¹ *Archæologia Scotica*, vol. i. p. 265.

² *Archæologia*, vol. xxxiv. p. 136, pl. xvi.

Eday, in Orkney (fig. 8). Its true character was not recognised by its discoverers, who described it as a habitation,¹ and it is marked "Erd-house" on the O.S. Map. It is built of upright stones and rubble, supporting a roof of horizontal slabs, but its foundation and parts of the walls are formed in the solid rock. The structure comprises a corridor with four small cells opening off it. One of the cells has a kerbstone in position,

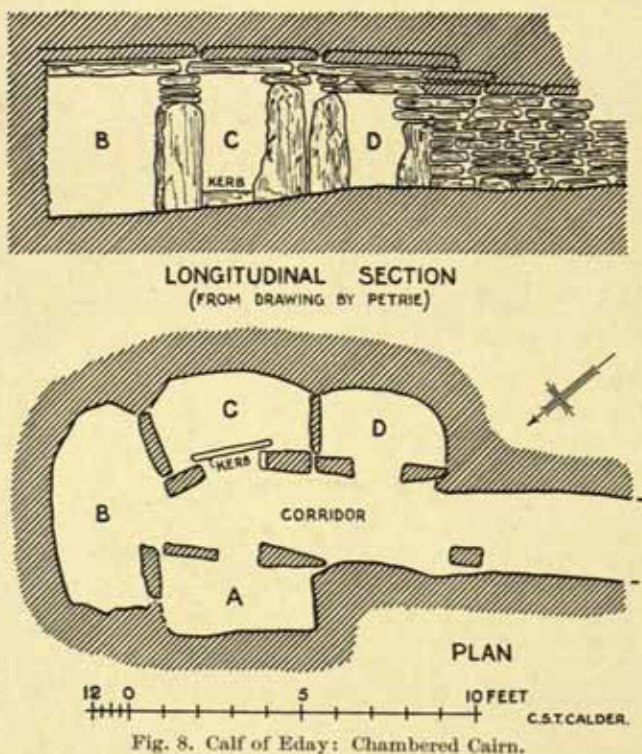


Fig. 8. Calf of Eday: Chambered Cairn.

and another was found with its entrance filled with masonry, while there was a large stone at the mouth of the corridor.² Petrie alludes to it as a subterranean chamber of a type which he suggests would be better adapted for concealment of provisions than for a dwelling, adding that at all events it would have been unsuitable as a place of retreat for any lengthened period. He also remarks that the recesses of this particular example convey the idea of beds or sleeping berths, and recall to his mind the interior of the Dwarfie Stane, an observation which confirms the idea of a connection between the two.³ But Petrie, in a later account,

¹ *Proc. Soc. Ant. Scot.*, vol. ii. pt. ii. p. 155.

² *Ibid.*

³ *Proc. Ork. Ant. Soc.*, vol. v. pp. 19-20.

which appears to have been overlooked, strengthens this connection by associating the cairn definitely with the chambered tombs.¹ In structural detail and arrangement the cells of the cairn on the Calf of Eday are in agreement with those of the lower chamber of Taiverso Tuick, Rousay, Orkney, which is also partly rock-cut, and which yielded round-bottomed pottery of neolithic type.² The lay-out of the Eday cairn is an almost exact reproduction, too, of a rock-cut tomb, No. 9 of a group at San Vicente, Mallorca (fig. 9),³ which shows the same number of cells similarly disposed at the end of the corridor. In the group the raised

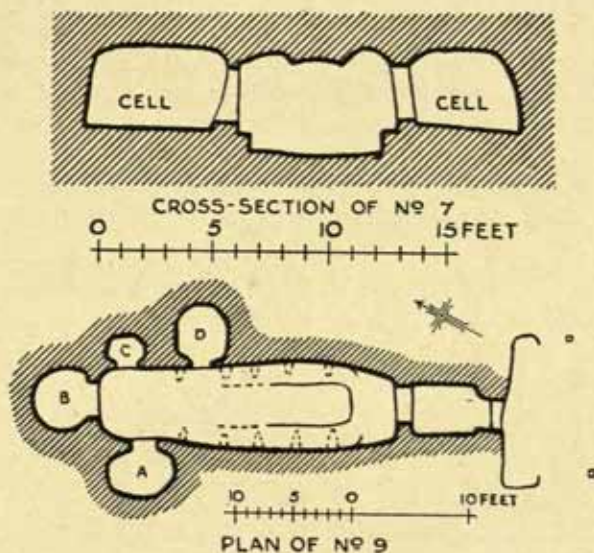


Fig. 9. San Vicente: Rock-cut Tombs, Nos. 7 and 9.

kerb, so conspicuous in the examples here described, is a noticeable characteristic which is well represented in Tomb No. 7 (fig. 9).⁴ The occurrence of these points of similarity is a further proof of Mediterranean influence.

Returning to Maeshowe, we may note that some of the stones have been dressed with a tool that has left on the surface a covering of pit-marks. This is an additional feature linking it with the Dwarfie Stane, on the walls of which pit-markings are very pronounced. It

¹ *Archaeological Journal*, vol. xx. p. 36.

² *Proc. Soc. Ant. Scot.*, vol. xxxvii. p. 81, figs. 3 and 4; *ibid.*, vol. lxxix. p. 340.

³ *Archæologia*, vol. lxxvi. p. 137, fig. 9. I have to thank the Society of Antiquaries of London and Mr W. J. Hemp for permission to redraw and reproduce the cross-section and plan shown here.

⁴ *Ibid.*, p. 126, pl. xix.

will naturally be asked what kind of implements employed for hewing would have produced this distinctive dressing. Wallace, who was the first to depict the Stane (fig. 10), was also the first to assert that the marks had been made by a "Mason's Irons,"¹ and an illustration by Pococke with its imaginative arcading (fig. 10) certainly creates the impression that a mason has been at work.² But, if my contention is sound, the cavity was cut hundreds of years before iron was known in this country, though the constructors may have possessed a knowledge of copper or

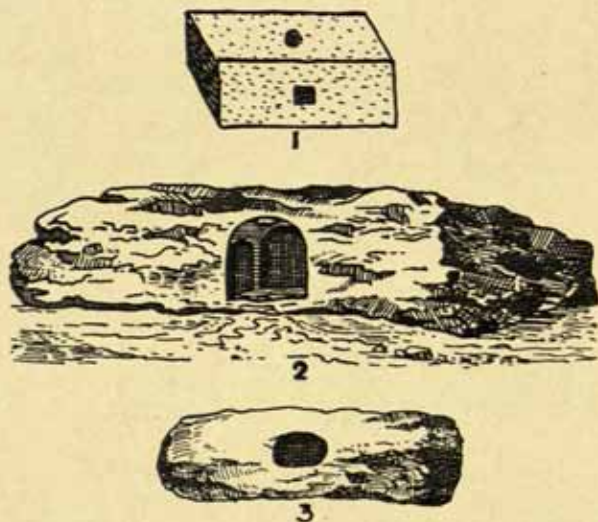


Fig. 10. The Dwarfie Stane: Perspectives and plan of top.
(1) From Wallace, (2) and (3) from Pococke.

bronze tools. Nor is there any reason why pointed flint or stone should not have been used.

I am informed by a metal-worker, who has watched African natives at work with stone implements, that the latter are much to be preferred to those made of soft untempered metals. Besides, the satisfactory use of flint as a medium has been successfully demonstrated by the experiment of Sir J. Y. Simpson, carried out in our own Museum more than seventy years ago.³ The subject of his test was the back of one of the stones figured in the *Sculptured Stones of Scotland*. The material selected was not a soft sandstone but something more difficult to work, a grey Aberdeen granite from Kintore. The doorkeeper of the Museum, he says,

¹ *A Description of the Isles of Orkney*, chap. iv. p. 21.

² "Tour in Scotland," *Scottish History Society*, vol. i. p. 135.

³ *Proc. Soc. Ant. Scot.*, Appendix to vol. vi. p. 122.

cut for him, in two hours, with a flint and wooden mallet, two-thirds of a circle, seven inches in diameter, nearly three-quarters of an inch broad, above a quarter of an inch in depth, and very smooth on its cut surface. The experiment, he concluded, showed that cups and rings might have been produced before the introduction of metals, or in the Stone Age. In Malta two structures of Neolithic date, Hagiar Kim and Mnajdra, show pit-marked dressings.¹ The marks at the former resemble those on the Dwarfie Stane in being more or less incidental, but those at the latter are different and are intended for decoration. Both show what may be effected in the dressing of stone work even without metallic tools. Professor J. L. Myres has stated that the marks at Hagiar Kim have been produced simply by pounding with a hammer, and that at Mnajdra they have been cut out and worked larger by rubbing with a stick and some sand.² Finally, in 1901, more than a hundred stone implements were found during excavations at Stonehenge, most of them being flint axes which had probably been used for dressing the softer of the sandstone blocks.³

Hugh Miller, who, incidentally, carved his name on the pillow stone, estimated that with pick and chisel he could excavate such another cavity as in the Dwarfie Stane in three weeks or a month.⁴ With flint implements the task would, of course, be much more toilsome. But a lavish expenditure of time and labour must generally have been incurred in the construction of these early tombs, and in this respect the Dwarfie Stane is not by any means exceptional. Though unique in character in the British Isles, it is not isolated in type, the series of connecting links enabling us to derive it from the rock-cut tombs of the Mediterranean. But a series of connecting links hardly seem necessary to prove the association. The correspondence of the architectural features is in itself sufficiently forceful and convincing to establish almost beyond question a direct communication. Stripped of its romance and legend as a habitation, the Dwarfie Stane yet remains more interesting and important in actual fact, as a tomb which survives as a monument of one of the earliest phases of culture which these islands have witnessed.

I have to thank Sir George Macdonald for a most helpful revision of this paper and also Professor Thomas H. Bryce for allowing me to include a statement of his opinion.

¹ *Papers of the British School at Rome*, vol. vi. p. 97.

² *Ibid.*, p. 97, fig. 2, pl. xiii; fig. 2, pl. xxiv.

³ *Rough Stone Monuments*, by T. Eric Peet, p. 19.

⁴ *The Cruise of the Betsy* (1858), chap. xv. p. 475.

NOTE ON "JO. BEN" AND THE DWARFIE STANE. BY
SIR GEORGE MACDONALD, K.C.B., PRESIDENT.

Mr Calder was puzzled to find in the translation of *Jo. Ben*, published by the Scottish History Society,¹ that the account of the Dwarfie Stane contained an allusion to a gutter, and he asked me whether I could help him. Reference to the original showed that the Latin word so rendered was *impluvium*. In the *atrium* of a Roman house this was the hole left in the roof as a vent for the smoke. Incidentally, however, it also admitted the rain, whence its name. A necessary complement was, therefore, a square basin, constructed directly underneath to catch the water, and this too came to be called the *impluvium*. "Jo. Ben" used the word in its primary sense, which suits the context admirably. The translator, who had never seen the Dwarfie Stane, interpreted it in its secondary sense and, finding it impossible to understand how anybody could escape through a basin, assumed that what was meant was a gutter for drainage. So far all was plain sailing. But a closer examination of the whole passage showed that the current English version is a sheer travesty of what "Jo. Ben" actually says. Ridiculous as the story is, it is sufficiently interesting to deserve more respectful treatment. It can hardly be less than three centuries old, even if Mr A. W. Johnston is right in believing that the *Descriptio Insularum Orkadiarum* is a forgery, either concocted by Sir James Balfour or foisted upon him as a hoax.²

The National Library of Scotland possesses three transcripts of this quaint little tractate—one among the Balfour MSS., one in Sir Robert Sibbald's handwriting, and the third in Macfarlane's Geographical Collections. After collating a good many passages in these—it will be convenient to speak of them as B., S., and M. respectively—I am disposed to think that S. and M. were both copied from B. If not, all three certainly derive ultimately from a common archetype. The editors of S.H.S., as I shall call the text in the Scottish History Society's volume, believed that Barry's *History of Orkney* (1805) puts us in touch with a fourth transcript, now lost but formerly also in the National Library. If so, it can only have been a copy of B., S., or M., or of a manuscript of the same family, made by a scribe who was either ignorant of Latin or careless or very possibly both, for the text which Barry prints is much inferior to that of any of the known transcripts. It is badly punctuated and contains numerous grammatical mistakes in places where the MSS. are, one

¹ *Macfarlane's Geographical Collections*, vol. iii. The Latin text is on pp. 302 ff., the section on Hoy being on p. 312. For the translation the corresponding figures are pp. 313 ff. and pp. 322 f.

² *Old Lore Miscellany of Orkney and Shetland*, vol. viii, p. 59.

and all, perfectly correct. Again, sentences which in Barry are obscure or nonsensical, wear quite a different complexion in the MSS. Thus, in the section upon Stronsay, where Barry has *nomine Troicis* and *spiritu maximo*, B., S., and M. with one accord read *nomine Trowis* and *spiritu marino*, at the same time distributing their commas in a way that makes the narrative intelligible, though not of course credible.

In the circumstances it is very unfortunate that the editors of S.H.S. should have based their reprint upon Barry's text, and the reason they give is wholly unsatisfactory. "The Latin in the Macfarlane manuscript," they say, "was found to have errors in certain parts."¹ The Latin of M. is not immaculate, but it is very much better than that in Barry. What follows is still more surprising: "Errors, however—chiefly grammatical—also occur in Barry's print, and these too have been corrected, but no change has been made that affects the sense." Curiosity led me to make a word for word comparison of the two versions. I found a few changes that affected the sense. These, it is fair to admit, were usually for the better. The many which I found affecting the grammar were almost invariably for the worse, sometimes very much for the worse. In the section on Sanday, for instance, *quia* has been altered into *quid*, *fuimus* into *suimus*, *multis* into *multiis*, and *habent* into *habeat*, none of these alterations having a jot or tittle of MS. support behind it. But, bad as the Latin text of S.H.S. is, the accompanying English translation is worse. It is taken from a manuscript once in the possession of Captain Thomas. The author is unknown, but it is a very amateurish effort, containing so many inaccuracies and absurdities that it is grossly misleading. Like S.H.S. itself, it is based upon Barry, and not upon B., S., or M. It was certainly not worth printing.

It will be clear that "Jo. Ben," whoever he may have been and at whatever period he may have lived, has suffered many things at the hands of posterity. Nor is the tale by any means complete. Mr Johnston's case against the date 1529, which appears in the heading, is unanswerable.² But is not the very ease with which it has been established a strong argument against the document being a forgery in the ordinary acceptance of that term? He would be a very simple-minded forger who would leave so many obvious lines of attack open to the higher criticism. I should prefer to think that the date is one of several indications that

¹ *Op. cit.*, p. vii.

² *Old Lore Miscellany of Orkney and Shetland*, vol. i. pp. 300 ff. By way of a small contribution to the discussion, I may mention that, as my examination of the MSS. showed, Sir James Balfour, the oldest transcriber known to us, was at one time in two minds as to the date. In B. the third digit of 1529 has begun by being a plain circle, possibly a 0 or possibly the upper loop of a 9. Then the scribe has dipped his quill in the ink and written over it a heavy 2.

B., itself the oldest of the transcripts, is some way removed from the original, if not in time, at least in substance—in other words, that 1529 is a copyist's mistake. That B. is disfigured by mistakes still more glaring can be readily demonstrated. To take but a single instance, even a casual perusal of the *Descriptio* leaves a distinct impression that the author knew his Orkney well, and yet the place names are here and there so severely mangled as to be barely recognisable. Is it, for example, at all likely that a forger, or for that matter of it anyone else who knew Orkney well, would give the name of "the Star of Lopeness" to Start Point, the headland that juts out eastwards from the northern end of the bay of Lopness in Sanday? On the other hand, it is extremely probable that in the sixteenth century this headland was called "the Start of Lopeness," for "Point" is a vain repetition, "the Start" already meaning neither more nor less than "the Promontory" (from Norse *stjert*, "a tail"). And, if that was what "Jo. Ben" wrote, what more natural than that an ignorant copyist should emend to "Star"? Similar marks of a defective MS. tradition will be apparent when we consider the account of the Dwarfie Stane, to which it is now time to turn. In passing, however, it may be remarked that, if I am right as to these being copyist's errors, they are in themselves sufficient to free Sir James Balfour from any suspicion of complicity in a forgery: they appear in the MS. which was written by his own hand.

Nowhere is the intimacy of "Jo. Ben's" local knowledge more manifest than in his description of the Dwarfie Stane and its surroundings. Readers of the original who have visited the spot will appreciate the accuracy of the opening. On the one side towers the mass of the Ward Hill of Hoy, on the other are the less lofty Dwarfie Hamars, and in the valley between—*inter quos* is the phrase used—is the Dwarfie Stane itself. This is represented as having been the handiwork of a giant and his wife, who fashioned it for their own habitation. Then follows what is without doubt a first-hand picture of the monument. Hardly any detail is omitted. Even the concavity of the roof has been noted. The most serious blemish is the intrusion in S.H.S. of the phrase "*duobus scuvialibus*." The second word is unknown to Latin lexicographers. Small wonder, seeing that it is an invention of Barry's transcriber. All three MSS. read *cervicalibus*,¹ so that what is meant is that the couch (*pulvinar*) had a double pillow, which, however, we are told, was not in two pieces but consisted of a single block of stone. The final touch is that the doorway

¹ In S. and M. the letters are so plain that no one could misread them. In B., though still not to be mistaken by a careful reader, they are less distinct, a circumstance which suggests that Barry's transcript may, after all, have been taken from B. To settle the point, a collation of other passages would be necessary.

was blocked by a stone, doubtless (as Mr Calder points out) the stone that now lies beside it. "How this has happened, I don't know," comments "Jo. Ben," and forthwith proceeds to relate the popular legend.

A second giant who also lived in Hoy, jealous of his rival, hatched a plot, hoping to kill two birds with one stone—to become sole master of the island, and to gain possession of a desirable residence. He shaped a stone in such a way that its dimensions corresponded exactly to those of the door, his idea being to shut the builders inside and starve them both to death. Accordingly, in the words of S.H.S.—

"Detulit tandem lapidem fabricatam in summitatem montis, atque jaculo imposito summa vi brachiorum (atque dolore alterius prosperitatis) in ostium injunxit, gigante incluso evigilante, auribus lupum tenebat, exire nequiens, suis maleis impluvium fecit, per quod egressus est. Si credere dignum."

The "authorised version" runs as follows:—

"At length he carried the prepared stone to the summit of the mountain and placing it as a dart by the great strength of his arms (and envy at the other's prosperity) joined it upon the mouth, the shut up giant watching attentively was every way in danger; being unable to escape he made a gutter with his hammer through which he escaped—if worthy credit."

Even after the stumbling-block of *impluvium* had been got rid of, Mr Calder and I were at a loss what to make of this. As a first step towards ascertaining the true sense of the Latin, the text of S.H.S. was collated with B., S., and M., when the following differences emerged: (1) All three MSS. read *fabricatum*, which is, of course, correct, so that the feminine is a mere blunder which Barry's transcriber has introduced; (2) While M. has an unequivocal *injunxit*, B. has what looks like *inunxit*, which seems to have puzzled Sibbald, since S. has *inverxit* as an interlinear suggestion; (3) B. and S. have a period after this verb, not a comma, while M. has no point at all; (4) S. has *evigilante* for *evigilante*, a negligible variation; (5) After *tenebat* B. and S. have a semicolon instead of a comma, and M. has a period; (6) B., S., and M. agree in reading *malleis*, not *maleis*. Bearing these differences in mind, let us take the passage clause by clause.

1. *Detulit tandem lapidem fabricatam in summitatem montis*.—It is obvious that there is something more than *fabricatam* wrong here: *detulit* means "carried down," and one does not carry things down to the top of a hill. Nor can there be much doubt as to what has happened. "Jo. Ben" wrote *in summitate*, meaning that the stone was "shaped on the top of the hill" or, in other words, among the crags that fringe the brow of the Dwarfie Hamars. The copyist, who had never been in Hoy,

misunderstood the opening passage. He did not realise that the Dwarfie Stane was in the valley, fully 300 yards away from the nearest point of the natural quarry on the summit. He thought it was on the hill top, and he therefore changed *summitate* to *summitatem*. The other transcribers, as well as the translator, all alike ignorant of the local conditions, perpetuated the mistake. The accusative *summitatem*, then, points in the same direction as "the Star of Lopeness."¹

2. *jaculo imposito summa vi brachiorum (atque dolore alterius prosperitatis), in ostium injunxit*.—The rendering "placing it as a dart by the great strength of his arms . . . joined it upon the mouth" is rank nonsense. But there is room for difference of opinion as to how matters can best be mended. In view of what has been said about the preceding clause, we may dismiss any idea of the stone having been hurled javelin-wise for 300 yards into the mouth of the passage. Apart from anything else, such a feat would imply that it succeeded in turning a corner *en route*, for the mouth looks west, whereas the Dwarfie Hamars are on the south. The best suggestion I can offer is that, when the giant had brought the *lapis fabricatus* down and placed it in position, he tried to push it home with the aid of a javelin, hoping in that way to get more purchase into his thrust.

3. *gigante incluso evigilante, auribus lupum tenebat*.—Here the translator says "the shut-up giant watching attentively was every way in danger," and there is a note, presumably editorial, to the effect that "Terence uses the phrase *auribus lupum tenere*, to be every way in danger." Balfour and Sibbald are right to begin a new sentence with *gigante*, for there seems to be a change of subject as between *injunxit* and *tenebat*; it was the aggressor who *injunxit*, and his intended victim who *tenebat*. The grammatical purist might object, on the ground that the victim opens the new sentence in the ablative absolute and could not, therefore, be immediately transformed into the subject of its principal verb. The objection would be valid if we were dealing with someone who set himself to write scholarly Latin as Sibbald, for instance, did. What "Jo. Ben" writes is dog-Latin and occasionally what Thackeray would have called "very sad dog-Latin" at that. Moreover, he appears to have had rather a weakness for beginning a sentence with its subject in the ablative absolute.² Accordingly we need not hesitate to assume that he did so

¹ Lest the mistake be imputed to "Jo. Ben" himself, it may be well to point out that elsewhere he is careful to distinguish between *in* with the ablative and *in* with the accusative.

² There is an undoubted example four or five lines above ("*ut . . . ipso dominante insulam, ad suum usum lapidem haberet*") and another in the section on Flotta ("*Vigilante vero minus affectus est*"), while to take the last sentence of the section on "Eloerholme" (Helliærholm) as a third example gives the only satisfactory sense, the cursing being done by the unfortunate wives.

here. It was the *gigas inclusus* who found himself "holding a wolf by the ears." And this picturesque phrase has a far more pointed significance than that conveyed by "was every way in danger." He who held a wolf by the ears was in a position in which it was very difficult to hold on and fatal to let go. The expression occurs, as the note indicates, in the *Phormio* of Terence. But it was widely current among both Greeks and Romans. The Emperor Tiberius, for instance, was fond of using it to describe the precariousness of his own tenure of power.¹ What "Jo. Ben" wishes us to understand is that the imprisoned giant had both his hands full, in the most literal sense of the words.

4. *exire nequiens, suis maleis impluvium fecit per quod egressus est.*—This part of the story is the climax of the whole. Its purpose is to account for the hole in the roof, a feature which would otherwise be unintelligible. The translation "being unable to escape he made a gutter with his hammer through which he escaped" does nothing of the kind, and is moreover impossible. Ignoring the contradiction between the first four words and the last two, and dispensing with any further discussion of the meaning of *impluvium*, I would point out that "with his hammer" for *suis maleis* is indefensible. *Suis* would be otiose, the plural would be wrong, and the Latin word for a hammer would be mis-spelt. Yet Balfour and the other transcribers evidently understood the phrase in the same way as the translator has done, for they wrote *malleis*. This leaves two out of the three difficulties untouched, and a more drastic remedy seems to be required.

I would venture to suggest that, just as lack of acquaintance with the position of the monument led to *in summitate* being transformed into *in summitatem*, so lack of acquaintance with the monument itself led to the substitution of *mal(l)eis* for *malis*—the ablative plural of *mala* ("a jaw"), a word which is often used in the plural for the teeth, as in Virgil, *Æneid*, iii. 257. With this reading, *suis* would be perfectly in order, and we should get an excellent sense, completing in the neatest possible way the picture conjured up by *auribus lupum tenebat*. The imprisoned giant had been roused before the *lapis fabricatus* had been thrust sufficiently far in to block the exit from the chamber. He was now crouching in the corridor, making a desperate effort to prevent the great stone from being driven farther in. Both hands were engaged in the effort and he dared not relax his grip for a moment. Accordingly, when he felt that he was reaching the end of his tether, he flung his head back and *gnawed* his way to freedom through the roof. Fantastic, no doubt, but not a whit more fantastic than the rest of the story.

¹ Suetonius, *Tiberius*, 25.

Let me now translate the Latin in the light of the foregoing comments:—

“Everything being ready, he carried down the stone which he had shaped on the top of the hill and, placing a javelin against it, thrust it into the opening with all the strength of his arms, stimulated by jealousy of his rival's prosperity. The giant inside was awake and presently found himself holding a wolf by the ears. Not being able to get out through the passage, he gnawed a hole in the roof, through which he made his escape. That is, if you care to believe the tale !”

This Note has stretched out to a length much greater than I had intended. But it will have served a good purpose if it shows that there is still something to be done for “Jo. Ben.” It is very desirable that a competent scholar, like Dr Marwick, thoroughly at home in the geography of Orkney, should re-edit the Latin text and give us a fresh translation. My impression is that, if he concentrated his attention on B. and took no account of S.H.S., he would find his task easier than might be supposed. Barry's transcriber is responsible for much confusion. It is a great pity that the editors of S.H.S. allowed him to lead them so far astray.

II.

ACCOUNT OF THE EXCAVATION OF A HUT-CIRCLE WITH AN ASSOCIATED EARTH-HOUSE AT JARLSHOF, SUMBURGH, SHETLAND, CONDUCTED ON BEHALF OF H.M. OFFICE OF WORKS IN 1935 BY ALEXANDER O. CURLE, C.V.O., LL.D., F.S.A.Scot., F.S.A.

A few years ago there was exposed on the extreme western limit of the area on which lay the group of prehistoric dwellings Nos. i-v at Jarlshof, and the associated middens, a stone wall of low elevation in the form of an arc of a circle, but it was not until the workmen, in tidying up the area after the close of the excavations in 1933, discovered an associated earth-house that it was deemed necessary to make a thorough examination of the site.

This resulted in the exposure of a circle (plan, fig. 1) formed with a dry built wall, composed of comparatively small flat stones and placed in revetment against the face of a bank (fig. 2). On the western arc the wall had been entirely removed. At most its height remained to only about 18 inches. The circumference of the circle, which was fairly regular in form, was some 25 feet. Subsequently an inner bank had been formed, in part revetted with a wall, and in part with flat-sided boulders, forming an arc running from opposite points in the circle and reducing the interior by about one-quarter, the remainder forming an oval measuring some 22 by 19 feet. This inner wall was, however, not all of one period. A portion at its north end was better constructed than the remainder, which was very rude and lay upon soil at a higher level. The longest axis of this later enclosure lay from north-west to south-east. The entrance to the earth-house, situated at the northern extremity, was beneath a lintel placed in alignment with the inner face of the secondary bank. It was apparent that the outer wall had been cut through for the construction of this underground chamber, as the wall, where this had occurred, dipped noticeably owing to the removal of the sand in its immediate vicinity (fig. 3).

On the floor of the segment cut off by the later construction there was little evidence of occupation either by discoloration or the finding of relics, the only object found being an imperfect slate tool with a serrate edge obviously referable to a much earlier period (fig. 4). A large

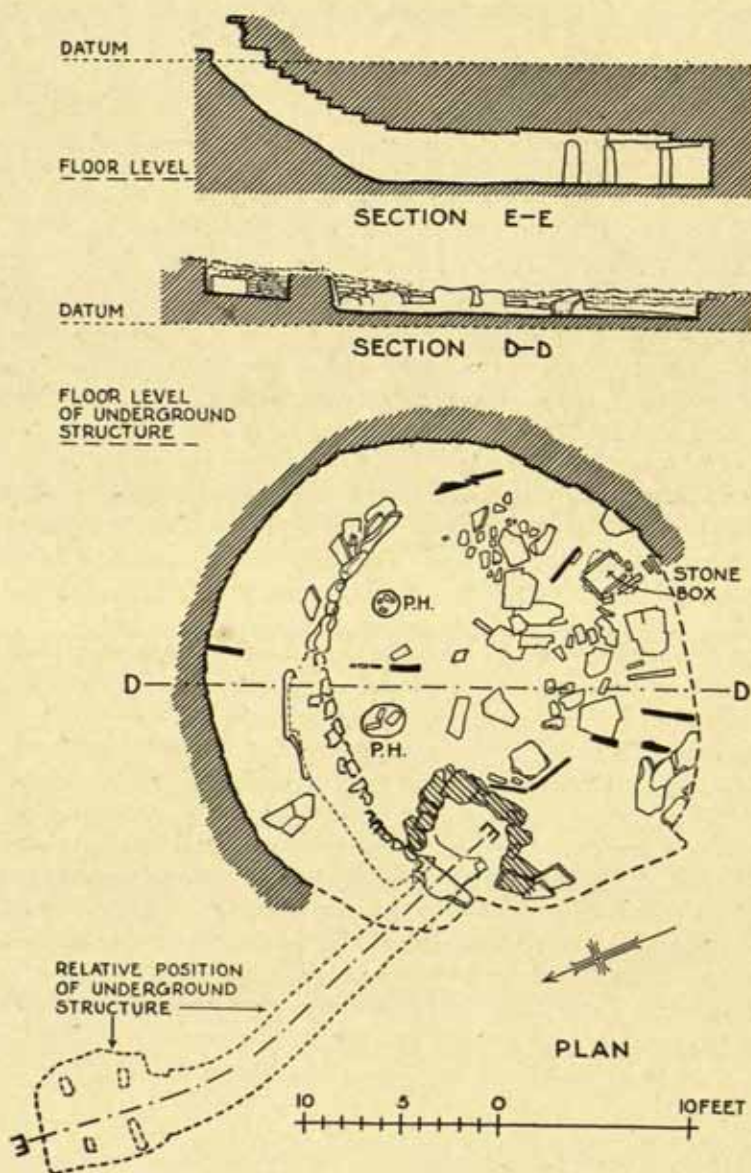


Fig. 1. Plan of Hut-circle and Earth-house.



Fig. 2. View of Hut-circle from the west with entrance to Earth-house in foreground.

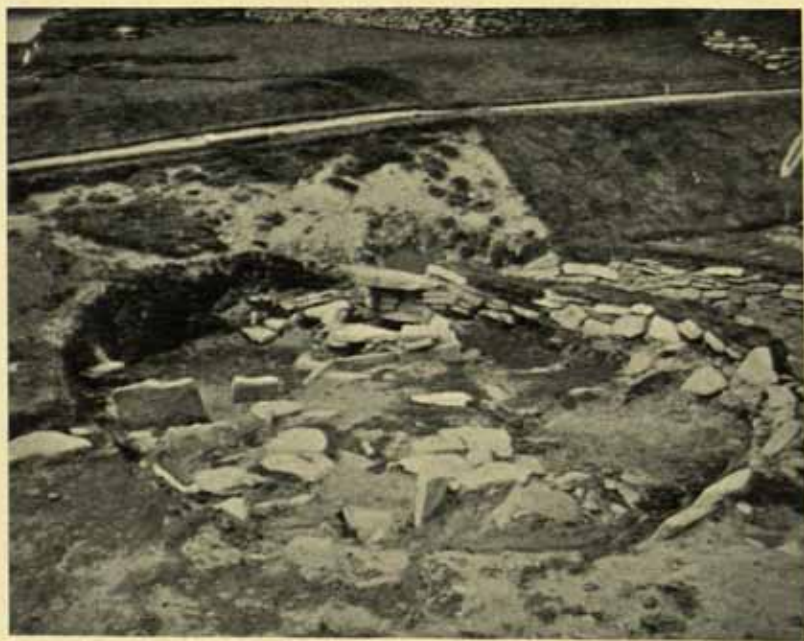


Fig. 3. View of Hut-circle from the east with entrance to Earth-house in central background and supposed site of Hut on right.

upright slab firmly fixed and set on edge projected from the face of the wall on the north-east, and following its direction, an upright stood at right angles to the face of the wall on the opposite side of the circle. Two other upright slabs stood up from the surface placed radially, one towards the south and the other towards the south-west. Behind the former a pit had been dug to a depth of nearly 2 feet, and filled with stones evidently to maintain the stone in position. The purpose which these uprights served is not obvious, but it may have been connected with some arrangement for covering over a small segment of the interior, as appears to have been done in an area to be dealt with hereafter.

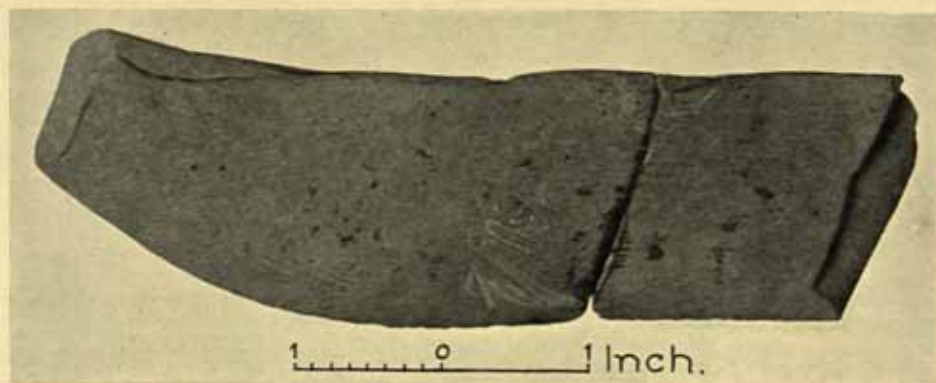


Fig. 4. Slate tool with serrated edge.

Across the western half of the circle, relative to the later level of occupation, lay a confused mass of fallen or disturbed stones, suggesting that a wall had crossed a part of the interior, no actual foundations of which, however, were discovered. Near the centre of the interior, as reduced, lay a small heap of peat ash, and three flags in its immediate vicinity, which might have formed a kerb for a hearth.

The appearance of the entrance to the earth-house indicated that in the final stage of occupation of the circle it had been put out of use for the accommodation of human beings as entrance to it and exit could only be effected with difficulty. A lintel some 3 feet 4 inches in length rested on built jambs, which reduced the opening to 2 feet in width. Recessed beneath this, as shown in the illustration (fig. 5), was a vertical face of walling resting on a second lintel, measuring altogether 18 inches in height, beneath which was the commencement of the passage to the underground chamber. In front, on the floor of the hut-circle, there was a small paved area measuring some 4 feet square and outlined with

boulders shown on the plan (fig. 1). The entrance itself was down a vertical shaft, partially recessed below the lintel, the recessed wall forming the inner face of the shaft, beneath which was the actual commencement of the passage. Fig. 6 shows the restricted space of the final period, with the head of a man who is standing inside.

Within, the access to the chamber consisted of a passage 20 feet in length, unpaved, roofed with stepped flags at a height of 2 feet, and



Fig. 5. Entrance to Earth-house as originally constructed.

sloping for the first 10 feet at a gradient of almost 1 in 2. From 2 feet wide at the entrance it expanded to slightly over 3 feet at the inner extremity. The chamber itself, which was roughly rectangular, measured some 6 feet in length by 5 feet in breadth, the floor space being, however, interrupted by four oblong stone pillars which helped to support the roof of flagstones. The space within this diminutive chamber was further contracted by the lowness of the roof, which was only some 2 feet 8 inches above the floor. During the latest period, with which we are at present dealing, the chamber had evidently ceased to be occupied, and the passage came into use as a dump for refuse shot down the entrance. On its surface, especially at the upper end, the sand was much discoloured and

there were lying in it many bones of sheep and oxen, shells of limpet, and a few cockles and razor shells. A number of large stones also lay on the passage, and from it there were recovered several pieces of pumice; five or six good pounders with the ends much abraded; a triangular plate of bone rounded on the edges (fig. 7, No. 1); a splinter of bone which appears to have been employed as a fabricator (fig. 7, No. 2); another worked splinter of bone (fig. 7, No. 3), and a portion of a rib-bone also worked



Fig. 6. Entrance to Earth-house in final period.

(fig. 7, No. 4). Two large sherds of a coarse pot and a small piece of a shouldered bowl resembling such as came from the upper level of Dwelling No. iii and analogous to a sherd found in the earth-house *h* of that dwelling, were also recovered (fig. 8, No. 3).

Above the paving at the entrance there were found a number of bone objects similar to those found in the later occupations of the prehistoric dwellings at Jarlshof (fig. 7) (cf. *Proceedings*, vol. lxviii. p. 273, fig. 40).

It was obvious that such a restricted entrance was not as it was when originally constructed. Accordingly the paving within the enclosure was removed, and beneath it there was found a layer of animal bones, obviously food refuse. Beneath this was uncovered a firmly bedded sill, in front of which the soil was clean and firm. The outer stones of

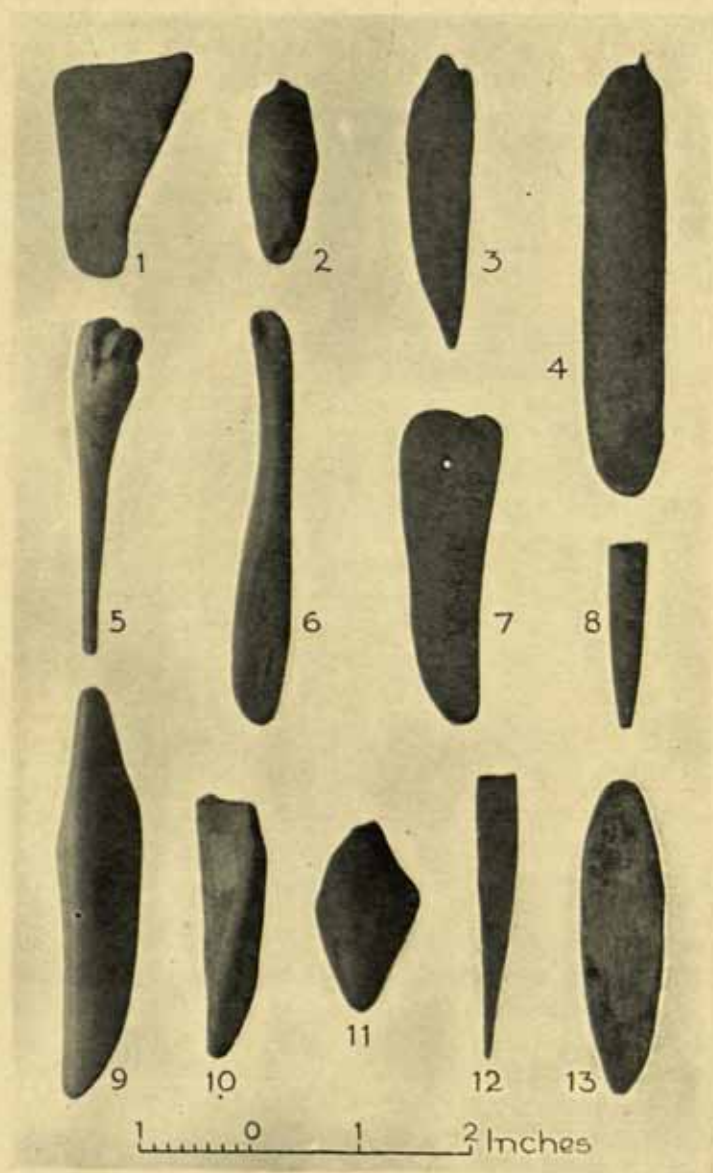


Fig. 7. Objects of Bone from Hut-circle and Earth-house.

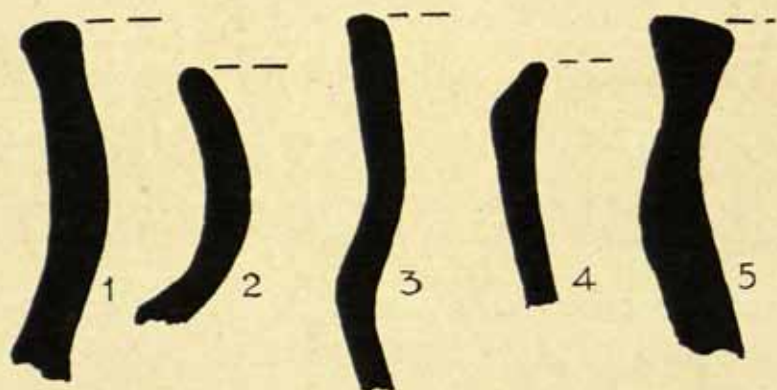


Fig. 8. Sections of Pot-rims found in Hut-circle and Earth-house. (†.)

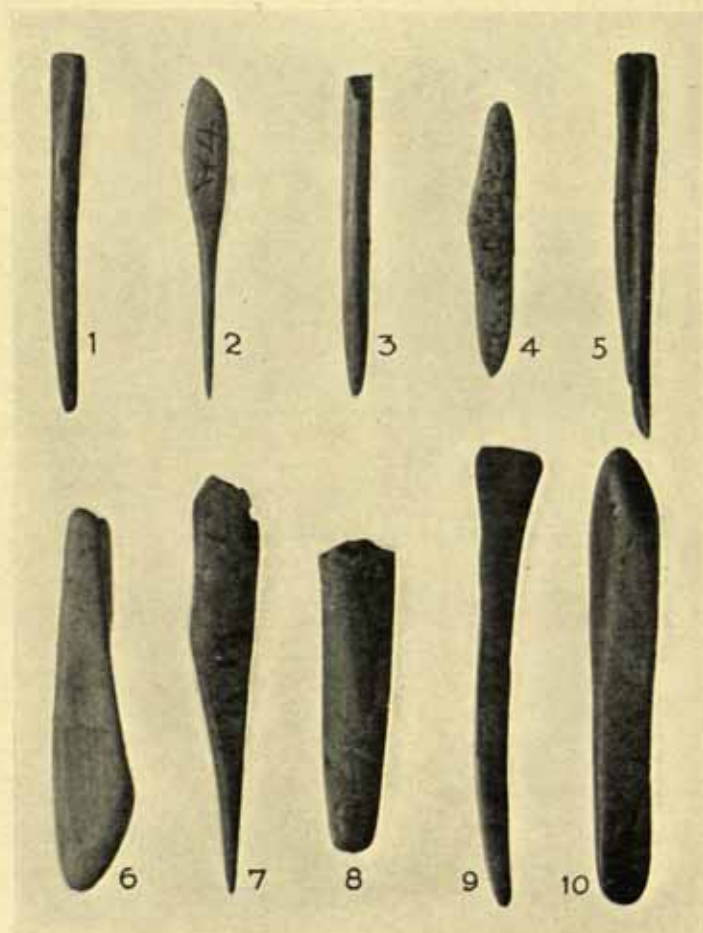


Fig. 9. Objects of Bone from Hut-circle. (†.)

the enclosure were also secondary as they rested on sand partially covering two kerb stones belonging to an earlier period. As a protection the stones of the enclosure were left *in situ*.

This evidence of an earlier and later period of occupations at the mouth of the earth-house and within it bore out the conclusion above stated regarding the two periods of the inner diminishing wall, and led to further examination of the hut-circle. Between the outer wall and the inner segment there was no signs of an earlier and later occupation. Within the latter, however, beneath several inches of sand, the former was quite evident, and produced several interesting features. In a hole to the west of the enclosure and before the entrance to the earth-house, numerous sherds of coarse pot were found mostly belonging to one vessel, and a pot-lid which had probably covered it. Unfortunately the upper portion of the vessel with the rim had entirely perished. Near the centre a heap of peat ash indicated the site of a hearth beside which lay the remains of another cooking-pot crushed beneath a stone. On the western arc, adjacent to a large upright, lay a small vertebra of a whale measuring $6\frac{3}{4}$ inches in height, which had been hollowed out to a depth of 4 inches. Further round the western arc towards the south, and close to the firmly wedged upright previously mentioned, there was revealed a small stone box covered with a triangular slate measuring 2 feet 7 inches at base by 1 foot 11 inches through the apex (fig. 10). The box on which this lid rested measured 1 foot 9 inches by 1 foot 5 inches at surface, and 12 inches in depth (fig. 11). It was filled to within 4 or 5 inches of the top with discoloured sand containing a few animal bones and shells. The bottom was formed of clean sand and gravel. There being a luting of clay in one angle only it was obviously not intended to hold water.

My attention having been drawn to an oblong lump of clay lying a few feet westward of the southern end of the inner wall I found on examination that it was lying on pure sand. Further exploration showed that this was a natural deposit extending to an indefinite depth. This led to an examination of the condition of the surface soil in the immediate vicinity, with the result that there was found over the triangular area enclosed between the south end of the inner wall the line of stones projecting from it near the centre of its length, and the irregular line of tumbled or displaced stones running from the face of two large stones placed in alignment which had probably formed the southern end of the inner wall, a very thin deposit of discoloured surface soil overlying pure sand, contrasting with a considerable depth of discoloured surface elsewhere within the enclosure. The triangular area is noticeable on the right of the illustration of the hut-circle (fig. 3).



Fig. 10. In centre triangular Cover of Stone Box.



Fig. 11 Stone Box with Lid removed.

A possible explanation of this phenomenon is that within this area was a hut, the sleeping place of the inhabitants when the earth-house was not in use, the floor being covered with hides. It will be remembered that the floor of the earth-house in the lowest level of Dwelling No. iii was in a similarly clean condition.

Likewise the floor of the underground chamber connected with this hut-circle, the occupation of which, for reasons previously stated, obviously belonged to this earlier period, was so free from discoloration as to be recognisable with difficulty. It is improbable that a circle of 20 feet diameter or more was ever roofed over, especially in a country where there was no timber, and the absence of material in the interior is evidence against there having been a bee-hive roof over any part of it. The inference appears to be that while the main part of the circle was an open court, as in other prehistoric dwellings, *e.g.* the dwellings at Jarlshof, and at Wiltrow, and the brochs, a portion was set aside and roofed with skins as a hut and sleeping place for the occupants. Two post holes were discovered, identifiable by the stones placed upright within them, one within the triangular area and one between it and the entrance to the earth-house.

A number of relics were recovered, referable to this earlier occupation. From the floor of the earth-house there came a fusiform object of bone (fig. 7, No. 13), a highly polished rib-bone of a sheep, a pot-lid $5\frac{1}{4}$ inches in diameter, and a piece of coarse pot. On the circle, in front of the entrance to the earth-house, were found two bone pins (fig. 9, Nos. 1 and 3), a blunt-pointed implement $5\frac{1}{8}$ inches long (fig. 12, No. 3), a small lozenge-shaped object of bone $1\frac{3}{4}$ inch long (fig. 7, No. 11), and a hammer stone. From adjacent to the whale's vertebra previously mentioned came a piece of steatite, 2 inches in length (fig. 13, No. 3), with a constriction in the middle of its length, also 13 hammer stones. There were also found one half of a ring of stone (fig. 13, No. 2), a polished stone disc, $2\frac{7}{8}$ inches in diameter (fig. 13, No. 1), and a piece of cetacean bone with impressions on the surface of the point of a sharp tool (fig. 12, No. 4).

The only other objects found were from the centre of the circle, and consisted of an adze-like object of bone, the cutting edge of which was broken off, made from the distal end of the metapodial of an ox, $4\frac{5}{8}$ inches in length and pierced with a hole $1\frac{5}{8}$ inch in diameter towards the process end (fig. 12, No. 1); and at a short distance to the eastward, the process end of another bone of the same character which had been similarly treated, but broken across the perforation (fig. 12, No. 2). These two objects possess a particular interest in being of a type found in considerable numbers at Skara Brae, Orkney, by Prof.

Gordon Childe,¹ and also because they are the first examples of the adze or chisel-like tools found at Jarlishof with the socket hole running horizontally through the tool instead of placed vertically in the head of it.

In clearing out the filling of stones which had been employed to buttress up the upright stone adjacent to the stone box on the western side of the circle, at $9\frac{1}{2}$ inches below surface level there was found a segment

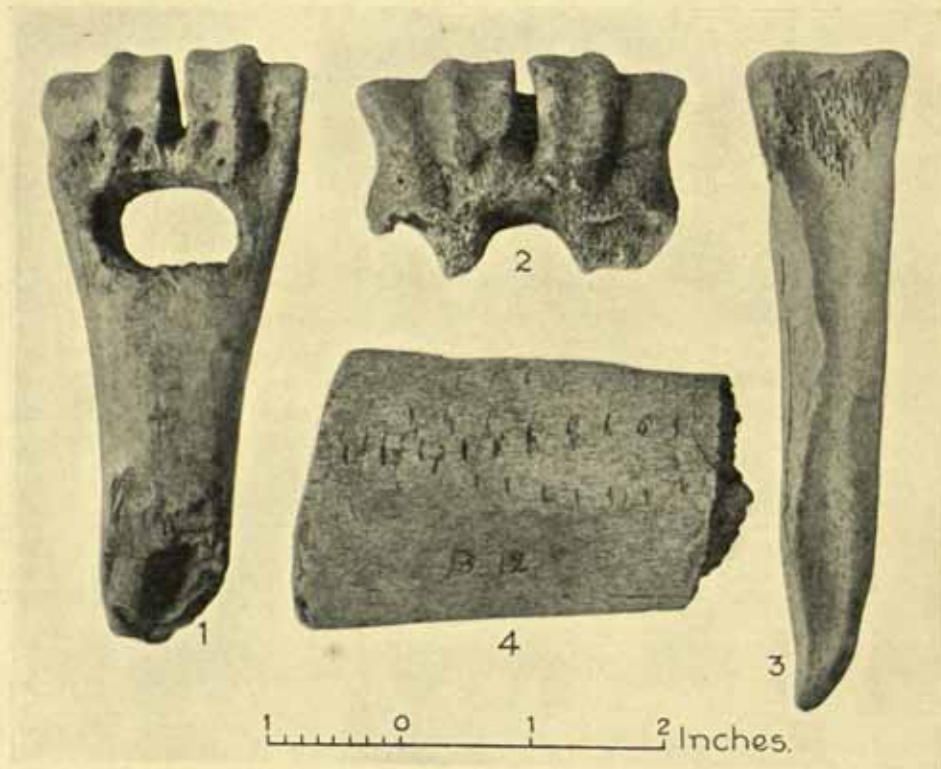


Fig. 12. Adze-like Tool and other objects of Bone from the Hut-circle.

of an armlet of steatitic stone, measuring $2\frac{1}{4}$ inches along the chord and perforated at one end (fig. 13, No. 4). This segment in form closely resembles another found in Dwelling No. iv,² and others found in the latest occupation level of Dwelling No. iii.³

A few rims of pots were found, the sections of which are shown in fig. 8. They present such close analogies to sections of sherds found

¹ *Skara Brae*, p. 124, where the type is discussed, and other finds noted.

² *Proc. Soc. Ant. Scot.*, vol. lxviii, p. 258, fig. 30, No. 1.

³ *Ibid.*

in earth-house *h* belonging to the latest occupation of Dwelling No. iii, shown in *Proceedings*, vol. lxviii. p. 292, fig. 57), that there can be little doubt that the hut-circle in its earlier period and that earth-house were in contemporary occupation.

With the examination of the hut-circle and of its associated earth-house the excavation of the group of prehistoric dwellings along the south-east margin of the Jarlshof site has now been completed, and as I do not

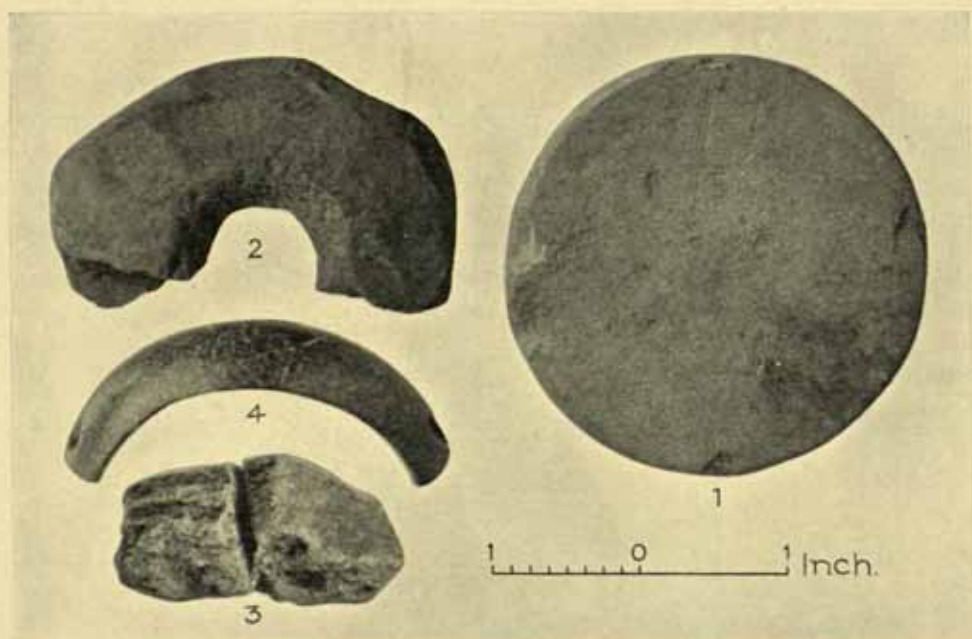


Fig. 13. Objects of Stone from the Hut-circle.

intend, in the meantime, to return to Shetland, I think it desirable to draw attention to certain features that have emerged, and indicate some inferences that may be drawn from them provisionally, and in this connection I desire to include the excavations at Wiltrow previously described this session, with those at Jarlshof.

Three cultural periods have been noted. The first—pre-metallic, when stone and bone appear to have been entirely employed for tools and implements, and presumably for such weapons as were in use. The second—a bronze culture, which did not bring about the supersession of the primitive tools and implements, but obviously, from the evidence of the moulds, did introduce the sword and the axe, the latter possibly

being also used as a weapon, or for use in the manufacture of swords, as, for example, in the shaping of the wooden patterns which were undoubtedly employed. Otherwise in a treeless land there was little need of sharp-edged tools. Lastly, an iron culture, which, though it probably superseded bronze in the purposes for which metal was used, had not, when met with at Wiltrow, provided a substitute for the stone from which the primitive tools and implements were made, though the complete absence of the stone implements from the hut-circle and the later levels of the other dwellings, points to the fact that by the time of their occupation this had occurred.

We have also met with three distinct classes of pottery. That belonging to the earliest period when the vessels were of the flower-pot form or bowl shaped, sometimes with one or, more rarely, two bead-mouldings on the rim. Second, pottery with deeply incised decoration forming lozenge and chevron ornament, found at Wiltrow; and lastly, the pottery of the subsequent periods at Jarlshof, with the frequent occurrence of shouldered vessels, pots with inverted rims, and occasional finger-tip impressions. The first class of pottery is not affected by the advent of the bronze culture; the second, so far as is known, is associated entirely with the early iron culture, and presents a somewhat close analogy with pottery found in the Hebrides; while the last, making its first appearance in the second bronze period, continues developing until the end. It finds its analogies in places as far distant as All Cannings Cross in Wiltshire and Scarborough in Yorkshire.

There have been revealed two definite types of dwellings—the oval or elliptical type, with an entrance at one end, an open court in the centre, a transverse chamber at the back of the court, and two small chambers on either side; and the circular dwelling showing cubicle-like chambers on the inside of the outer wall, the considerable use of large stones set on edge in the construction, and the addition of an earth-house or underground chamber.

The first type, now introduced for the first time, we may call indigenous, and with it is associated, except at Wiltrow, the primitive class of pottery. The second type, though seemingly in use during the second period of bronze in Dwelling No. iii, is more definitely associated with the later iron period when the rude stone implements have apparently been superseded.

What are the inferences which may be drawn from these facts? In the first place the introduction of bronze does not seem to indicate anything of the nature of an ethnic movement, the advent of immigrants with fashions in implements and in pottery of their own, which would

have superseded those of the native inhabitants. It points rather to the advent of one or more smiths, or of a few individuals who settled among the native population and plied their craft. In other words, the addition of bronze weapons to the general equipment of the natives did not displace the primitive stone culture. There having been a distinct hiatus between the first occupation associated with the elliptical plan of dwelling and the advent of the bronze smiths, and the second with the circular dwelling and the third class of pottery, it seems evident that in the latter case there was a larger influx of people who brought with them a new culture implying change in architecture and pottery, the abandonment of the rude stone implements so characteristic of the earlier period, and the introduction of the earth-house.

III

AN ACCOUNT OF THE EXCAVATION OF FURTHER BUILDINGS OF THE VIKING PERIOD (VIKING HOUSE NO. II), AT "JARLSHOF," SUMBURGH, SHETLAND, CARRIED OUT ON BEHALF OF H.M. OFFICE OF WORKS BY ALEX. G. CURLE, C.V.O., LL.D., F.S.A.Scot., F.S.A.

When ground was first broken revealing the existence of remains of a Viking settlement at Jarlshof, it happened to be at a spot where an alleyway ran between two buildings, and which had been used in later times as the site of a midden. In the summer of 1934 the more westerly of the two buildings was explored and duly reported on.¹

In 1935 the structure on the opposite side of the alley, and a group of associated chambers to the south-east, were examined. Unfortunately the greater part of the meadow in which the ruins were situated had been brought under cultivation, and a crop of bere prevented the complete exploration of the site towards the east. The building facing the alley was in a very ruinous condition and the plan difficult to ascertain. Originally it had been a house, possibly a dwelling, or a range of rooms or offices associated with another Viking house lying to the east of it in the ground under crop. It measured some 50 feet in length, was rounded at either end, and lay parallel to the dwelling previously excavated (see plan, Plate I). There had been an entrance 3 feet

¹ *Proc. Soc. Ant. Scot.*, vol. lxi. p. 265.

in width through the main wall, distant some 6 feet or so from what appeared to have been the south-east end. It may have been coeval with the other house, or even earlier, as the drain which crossed the floor of the latter belonging to the second period of occupation had been responsible for a partial destruction, and very rough replacement, of the north-west portion of the front wall, under which it partially passed. Of the original house very little apparently remained. The outer face of the front wall, from a short return which seemed to be the only remaining portion of the south-east gable, extended along the side of the alley for a distance of 32 feet, built apparently in characteristic fashion with alternate layers of turf and stone. At the end of this section there was a slight projection outwards, causing a departure from the original alignment in the farther extension of the front. This latter portion of the wall was entirely a reconstruction formed of large stones roughly put together (fig. 2). Beneath the right-angled projection where the alignment changed, there was an inlet into the drain, evidently intended to catch surface water from the alley, the surface-level of which had a fall of 1 foot 3 inches from the south-east to this point, and it had possibly been in connection with the formation of this drain that the wall had been reconstructed. A portion of the original wall remained at the north-west end, while on the outer front, except for a short stretch of walling some 3 to 4 feet in length which had collapsed inwards, no trace of the original wall remained, as far as ascertainable.

Seemingly the whole building had been allowed to fall into ruin and then reconstructed for secondary purposes. It had apparently been a three-roomed house. Though the outer wall on the north-east side had practically disappeared its line towards the north-west end must have passed close by the ends of the platforms indicated on the plan (Plate I) at the entrances to Rooms I and II, with the exception of the end of the platform on the left of the entrance to Room I, which had obviously been displaced. What happened eastward of that it is difficult to say. Room III had originally been some 25 feet in length, but, owing to alteration in the south-west wall, was of unascertainable width.

The three rooms, after final abandonment of the dwelling, had been used as ash-pits, for peat-ash lay deep over the floors, and in Room I there was also a considerable amount of food refuse. Room I, which was irregular in shape owing probably to the dwelling having tapered towards the end, measured some 9 feet in length by 7 feet 6 inches in width where widest. There was evidence of two or three occupations, recognisable by the occurrence of flooring flags, and, in one instance, of a

short length of inferior building, at different levels, but no indications of the periods to which they belonged. The floor had been paved, and there was no discoloration of the soil which actually covered it. The walls forming the chamber were in a very ruinous condition, as the methods of building employed by the Norsemen did not make for any permanent stability. From the north-east there was an entrance to the room some



Fig. 2. North-west end, showing Reconstruction of Wall.

4 feet 6 inches in length, with platforms extending the length of the passage on either side (fig. 3), measuring in width about 4 feet, and, as remaining, some 2 feet in height, formed of earth enclosed with walling. In the interior of the room a single upright slab was set in the floor at right angles to the inner wall of the end platform. At the base of the partition wall dividing this room from Room II there were the remains of a flue which must have been connected with a furnace, from which came some specimens of iron slag and of bog iron.

An opening in the partition wall in the south corner of the room gave access to Room II. This had been a larger chamber than Room I,

measuring about 12 feet by 9. The floor of it was also paved, and it dipped towards the entrance, which was, as in the previous case, from the north-east. The passage led inwards for a distance of 4 feet with a width of a little over a foot. The walls on either side were set deep, but the lower part of the passage was filled in with broken stones and debris

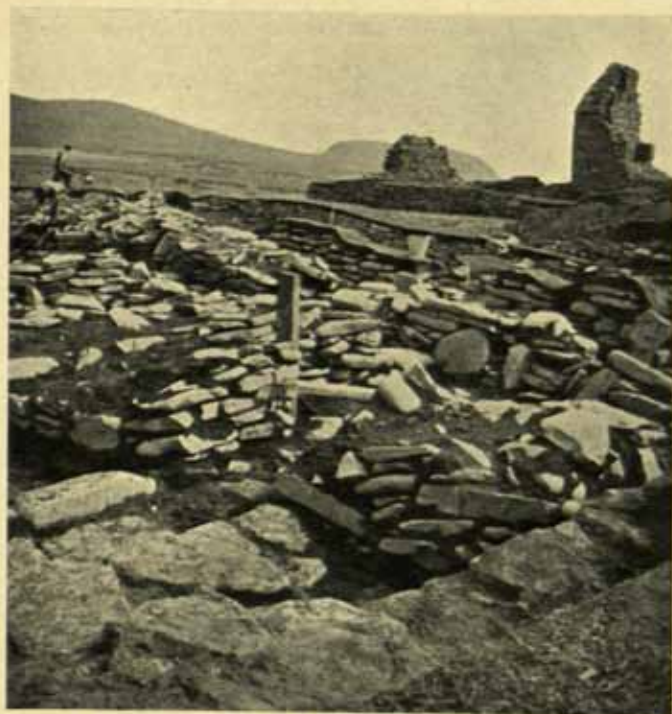


Fig. 3. Entrance to Room I, showing Platforms to right and left.

as if for drainage. A single lintel at the inner end covered the passage, leaving a space below such as might have allowed entrance for pigs or sheep (fig. 4). As in the case of Room I, a platform flanked the passage on either side faced with stones, and in the south-east corner of the room there were the remains of another platform in a ruinous state. In the opposite corner a recess had been formed behind a short projecting wall. Parallel, and only a few inches in front of the north-west wall of this room, there was a bench about $1\frac{1}{2}$ foot in width, and similar in height, formed of turf or soil, with one or two upright stones on the side, and covered with flat stones like drain covers. Benches, somewhat similar on plan, are shown to have existed in Greenland, where they were

employed to support hacks to hold hay for feeding sheep.¹ The character of the passage as above described admits of such a possibility in the likelihood of this chamber having been used for sheep or pigs in one part of its history.

The plan and evolution of Room III was very difficult to comprehend

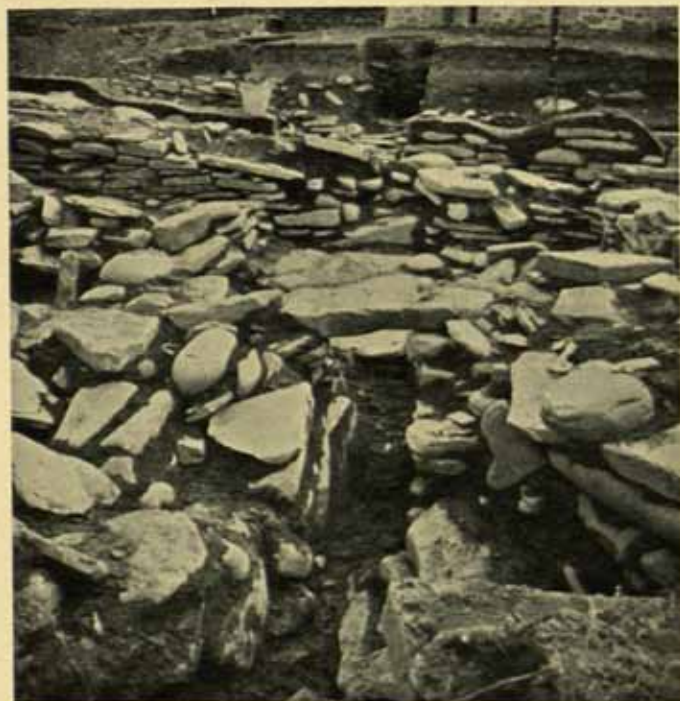


Fig. 4. Entrance to Room II, with a Lintel over it.

(fig. 5). It had been an oblong chamber, measuring in length 25 feet from the end wall on the south-east to the face of the actual wall separating it from Room II, and some 13 feet in width. At a distance of some 4 feet 6 inches in front of the latter, parallel, and extending almost to the full width of the room, was another wall, in a ruinous condition, but remaining to a height of about 1 foot, in two courses, which acted as a facing to a bench of soil, probably employed as a dais. Crossing this wall at its north-east end is a single line of flat stones, which suggested the base of a later retaining wall. It was carried right forward beyond the apparent edge of the building, but could not be

¹ See Daniel Brunn, *Fortidsmindivog Nütidshjem paa Island*, Copenhagen, 1928, p. 283.

followed owing to the bere crop. Again, at a distance of 4 feet 6 inches or thereby, further into the chamber and parallel with the end wall, was another facing wall of large stones, giving the appearance of the formation of yet another dais at a lower level and possibly of an earlier period. In front of this last-mentioned wall there was an indeterminate extent of compacted clay on the floor, and a similar bed of clay formed the

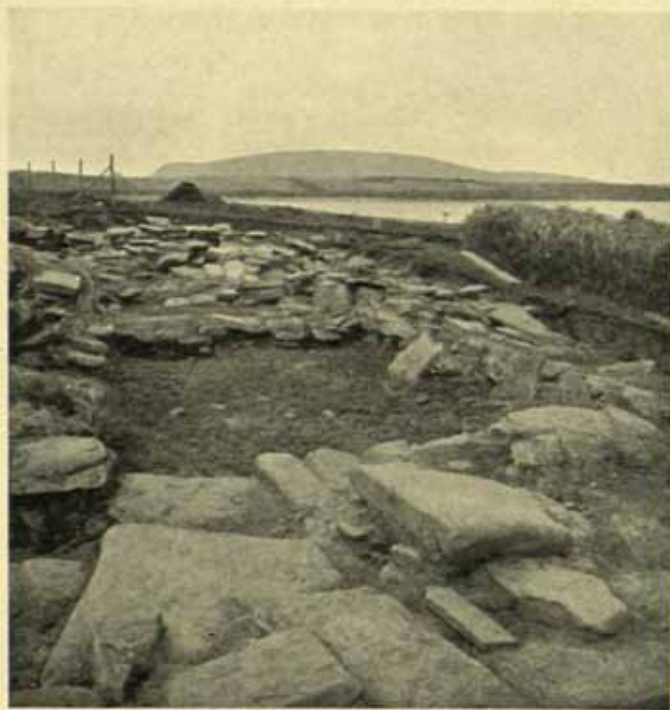


Fig. 5. Room III from the south-east.

flooring in front of the opposite wall at the south-east end of the chamber. The wall fronting the alley had been much interfered with on its inner face, as may be seen from the plan. Originally there had been an entrance through it, blocked at a later date. Through the outer wall, on the opposite side, there was an entrance corresponding to those into Rooms I and II, flanked also by similar platforms.

On the right of the entrance there were, however, two platforms in place of one, and it will be noticed from the plan that the rear platform projects beyond the front of the back dais in exactly the same manner as the foremost platform extends beyond the line of the inner

wall—as if platform and dais were each associated features of separate plans. Within, on the floor some 18 inches distant from the inside of the outer wall, there was a large flagstone firmly set on edge, and between this and the wall, against which there stood a couple of upright stones, there had been a fireplace. Besides the evidence of the fire supplied by the condition of the ash on the floor, one of the stones



Fig. 6. Fireplace in Alleyway at Base of Wall.

against the wall was burnt to a brick-red colour. An excavation in the floor of this chamber revealed a bed of peat-ash to a depth of 3 feet lying on what appeared to be virgin sand.

In the alley against the front of this chamber there was uncovered in 1934, beneath the midden refuse, a small fireplace still filled with burnt broken stones (fig. 6). Behind this a flue passed inward through the wall, and, this season, it was met with at the base of the partition wall between Rooms II and III at the rear of the supposed dais. The deposit of peat-ash on the floor of this chamber lay to a depth of nearly 20 inches, and there was no food refuse mixed with it. From the evidence

of structure it appears to have been occupied as a living- and sleeping-apartment.

At the extreme south-east end of Viking House No. II, and extending partially across the end of the alley, were the foundations of two other chambers which differed entirely in character from those previously described (fig. 7). A doorway, some 2 feet 9 inches wide, in the south



Fig. 7. View across Chambers at the south-east end.

corner of Room III, gave access to a passage which led westward for a distance of 22 feet into the alleyway, and also to a doorway on the left into a small rectangular chamber, measuring some 7 feet by 8 feet, with a paved floor. The entrance from the passage is singularly narrow, measuring only 1 foot 3 inches in width, but in the south-west corner another entrance 2 feet 9 inches wide opens out from the end of the alley. The wall which forms the south-east end of the above chamber is carried across the alley to meet the outer face of the wall of Viking House No. I, and also forms the north-west wall of a long, narrow

chamber, measuring 2 feet 9 inches in breadth and 10 feet 6 inches in length, with an entrance through its east wall at the north-east corner. On the wall opposite this entrance was a shallow recess some 2 feet 6 inches wide. This chamber had also been paved.

Attached to the Viking dwellings of the period were various store-rooms, the larder, dairy, etc., in which were kept the supplies, and some



Fig. 8. Paved Passage leading out of Room I.

such purpose these two chambers must obviously have fulfilled. Even in the larger of the two there were no traces of a bench, or platform, such as appeared in the other houses, nor was there any discoloration on the floors to suggest that they had been employed for sheltering or stabling stock. Some sherds of pottery found in a passage were identical in character with those found in Viking House No. I in 1934.

The chambers in House No. II had obviously at some period of their history been used as sleeping places, possibly by the humbler members of the Viking establishment even when they were used for other purposes.

The larger room, III, might have been the women's room. No rooms have been discovered which could be identified as stables, byres, or smithy, usual complements of such an establishment.

From Room I a paved passage (fig. 8) led outwards in a north-easterly direction for a distance of 12 feet, gradually expanding in width from 2 feet 3 inches to 4 feet, until it was crossed by a later wall. This wall was found to be the end wall of another building, measuring in the interior some 16 feet in length by 6 feet in width. The wall surrounding

it was not of the same character as that of the Viking house, and, from its position blocking the exit passage, the building was obviously later.

At a distance of some 10 feet from the south-west end of this building, and below the floor-level, a wall composed of unbroken beach stones crossed it obliquely. As this wall, which varied from 2 to 3 feet in breadth, passed through a bed of peat-ash, which also extended beneath, it was probably a foundation.

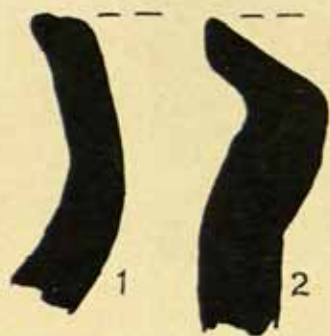


Fig. 9. Sections of Rims found to westward in the Meadow.

To the right of the paved passage from Room I there remained two sides of what had apparently been a flagged enclosure formed of upright slabs, and, according to later custom, probably used to harbour a calf. The slab forming one side measured 4 feet in length.

Excavation made in the meadow to the westward revealed the existence of other foundations in that direction. Some sherds of coarse pottery (fig. 9) showing an everted rim found among them were not similar to those characteristic of the Viking period as revealed in the excavation of the house, and were probably of later date.

In the excavation of Viking House No. I a drain was discovered crossing the floor from a westerly direction, pointing to the existence of an associated chamber at its source. Unfortunately the presence of the Mausoleum prevented the complete exploration of the area, but a deep trench was carried forward, as far as could be done with safety, in the direction of the front of that building, and in this a wall was exposed, the base of which lay at a level of 23 feet 3 inches above Ordnance datum, practically that of the adjacent wall of the Viking dwelling. As numerous loom weights, pieces of large steatite vessels, a piece of a haunched hone, and a characteristic small hone of black slate, perforated at one end, were found at the foot of the wall, it was probably

the end wall of the chamber for which we were seeking. Further exploration can only be effected after removal of the Mausoleum. Beneath this wall lay an earlier wall approaching it at right angles from an easterly direction.

The most interesting features discovered in the course of this excavation were the platforms (see plan) situated at the entrance to Rooms I, II, and III, and in the east corner of Room II of Viking House No. II. In all probability these were erections intended for the support of box-beds.¹

RELICS.

The relics found in the course of this excavation were not numerous or important, but were closely analogous to those found in 1934 in the Viking House No. I.

Bone Objects.—A perforated head of a femur, measuring $1\frac{1}{2}$ inch in diameter and 1 inch in height (fig. 15, No. 7), was found below the turf in the supposed store chambers at the south-east end. Similar objects were found in the course of the excavation of the prehistoric dwellings at Jarlshof in 1933, and as one of these came from the earth-house "h" it was presumably contemporary.² Another was found at a high level in the Viking house in 1934.³ A number have been found in brochs. These objects are usually designated whorls, but such employment for all of them is not obvious.⁴

A piercer, $3\frac{7}{8}$ inches long (fig. 11, No. 4), was found on the paving of the passage which led out of Room I.

A piercer or needle, $3\frac{3}{4}$ inches in length and perforated at the head (fig. 11, No. 5), was found in Room III below floor-level.

A broken piercer (fig. 11, No. 3) was found outside Viking House No. I, in midden refuse referable to the Viking period.

Brass.—A ring, $\frac{15}{16}$ inch in diameter, formed of thin brass wire (fig. 11, No. 8), was found in Room III at floor-level (24 feet above Ordnance datum).

Bronze (Miscellaneous).—From one of the supposed store chambers at the south-east end came an object, measuring 3 inches in length, which was evidently a portion of the rim of a bronze vessel with a repairing strip folded over it, and from the same spot there was recovered a relic in

¹ The positions of beds on either side of the entrances are shown in the typical plan of a "Hearth-room-house" of the later Middle Ages in Norway in the notes to *Kristin Lavransdatter*, the classic Norwegian romance, by Sigrid Unset, *q.v.*, English translation, p. 930.

² *Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 271.

³ *Ibid.*, vol. lxxix. p. 306.

⁴ See *Proc. Soc. Ant. Scot.*, vol. lxxviii. 1933-34, p. 271.

form of a four-pointed star, pierced with nine circular perforations, and small pin-holes at the end of each point (fig. 10, No. 1). It measured $1\frac{7}{8}$ inch in extreme length and breadth, allowing for the absence of one point, and resembled a mounting for a binding. From each of the Chambers I, II, and III, as well as from the ground in front, came small

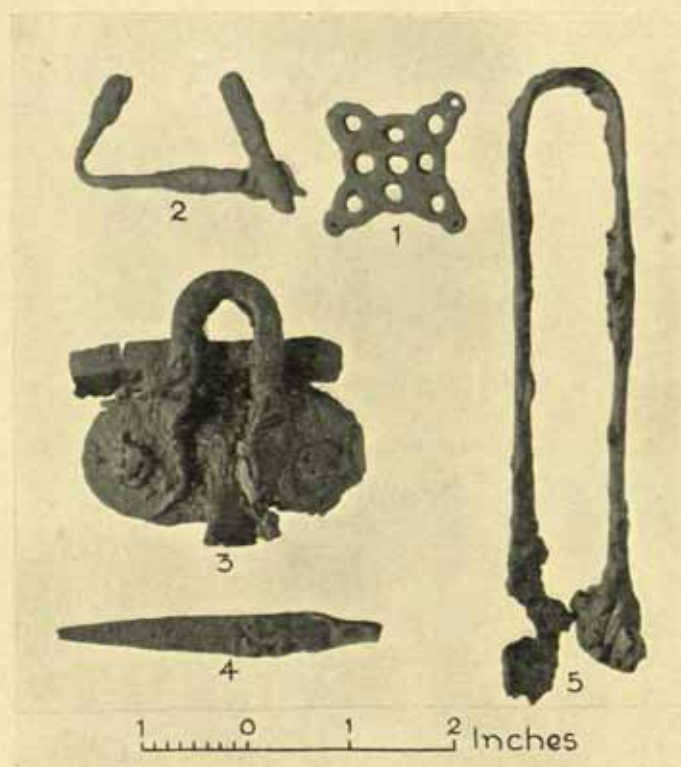


Fig. 10. Miscellaneous Objects of Bronze and Iron.

fragments of sheet bronze—eleven pieces in all. Similar fragments were found in excavating the Viking house adjacent in 1934. They have the appearance of being parts of a large bucket or cauldron, but their diffuse distribution is inexplicable.

The only other object of bronze found came from the floor of the chamber excavated outside Room I towards the east. It is a broken fragment with two arms, and in appearance suggests a portion of a balance (fig. 10, No. 2).

Combs.—Several portions of a large bow-shaped comb for the hair,

with teeth on one side, made of bone, with criss-cross decoration in the centre of the bow, was found among midden refuse in Room I, and three

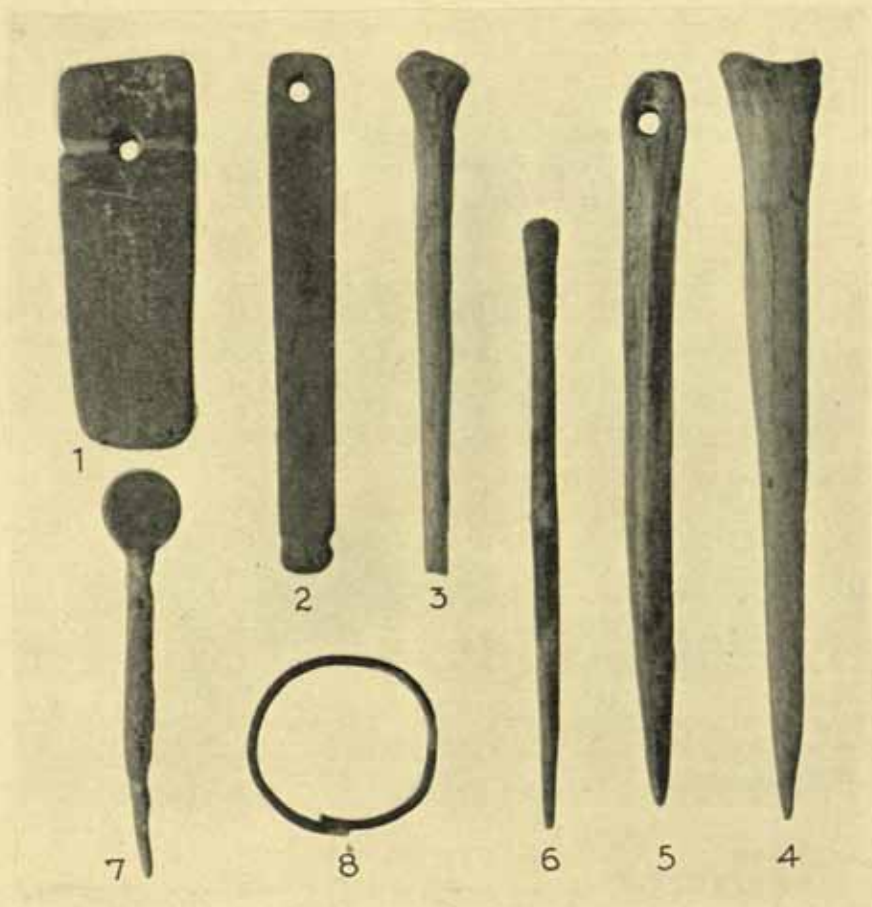


Fig. 11. Hones, Bone Piercers, Bronze Pin, and Brass Ring. (1.)

pieces, much decayed, of a straight comb of bone were found at floor-level in Room III.

Hones.—A small black hone, 2 inches in length, $\frac{3}{4}$ inch in breadth (fig. 11, No. 1), and perforated at one end, came from Room I, and portions of haunched hones (fig. 12) came from Room III, the trench in front of the Mausoleum at a high level, and from the meadow. A small black hone of slate (fig. 11, No. 2), perforated at one end and notched at the other,

$2\frac{5}{8}$ inches in length, was found in front of the wall, presumed to be of Viking period, before the Mausoleum.

Mould.—An object of steatite (fig. 13), with three pin-shaped matrices cut in it on one side, one similar on the other, and also on the latter a

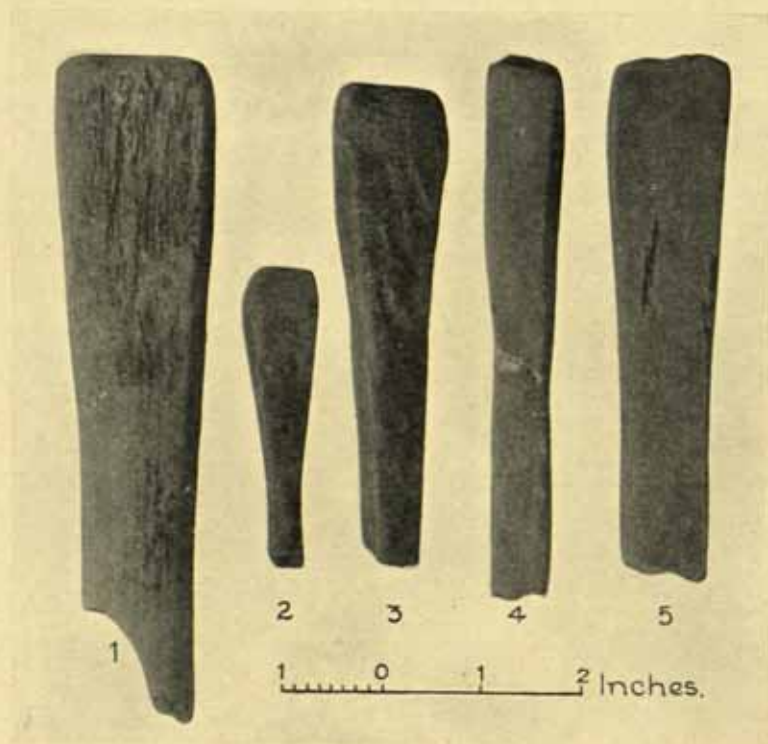


Fig. 12. Haunched Hones.

cylindrical matrix, was found under a paving-stone in the building outside Room I to the east.

Pins.—A bronze pin, $3\frac{1}{8}$ inches in length, circular in section, measuring $\frac{3}{16}$ inch in diameter at one end and tapered to a point at the other, with ribs formed of fine lines on the upper half extending for about $\frac{1}{2}$ inch down (fig. 11, No. 6), was found in the alleyway.

A disc-headed pin of bronze, $2\frac{1}{8}$ inches in length (fig. 11, No. 7), came from the floor-level of the building in front of Room I. A similar pin was found in the Broch of Burray, Orkney, and is preserved in the National Museum of Antiquities.

The pointed end of a pin of polished ivory, $1\frac{7}{8}$ inch in length, was found in Room III at floor-level.

Iron Objects (Miscellaneous).—An iron loop handle with thin strips of bronze attached, probably part of a bucket (fig. 10, No. 3), was found



Fig. 13. Mould of Steatite.

at a high level in a deposit of oyster shells in a trench in front of the Mausoleum.

A knife-blade, $3\frac{1}{8}$ inches in length (fig. 10, No. 4), was found at floor-level in Room III.

The remains of a pair of scissors (fig. 10, No. 5) were found at about 1 foot below the floor-level in Room III.

Polisher of Quartz.—A small pebble of white quartz, 1 inch in length (fig. 15, No. 9), reduced to a flat surface and highly polished at one end, was found in Room II.

This is an example of a class of objects of which a number were found on the site of the Roman fort at Newstead, Melrose, and also on

haughlands at Dryburgh, Berwickshire, by Mr J. M. Corrie, F.S.A.Scot., and have been reported on by him in the *Proceedings* of the Society.¹

Pottery.—The sherds found were of similar character to those found previously, the body showing numerous impressions of leaves and seeds of grass. One sherd of thick pot (fig. 14) had a deep groove below the rim.

Stone Objects.—A shaped object of steatite (fig. 15, No. 8), incompletely perforated at one end, $2\frac{1}{4}$ inches long, and with a constriction around the centre, was found in opening out the store-rooms at the south-east end.

A disc of stone, $1\frac{1}{2}$ inch in diameter, was found just below the turf above



Fig. 14. Potsherd with deep groove below Rim. (1.)

the store-rooms; another, $2\frac{1}{4}$ inches in diameter, was found at floor-level in Room II. A similar disc of same dimension was found at floor-level in Room III. Another, measuring $1\frac{1}{2}$ inch in diameter (fig. 15, No. 1), was found on floor-level in the store-rooms. Another, measuring $1\frac{5}{8}$ inch in diameter (fig. 15, No. 4), was found outside Room I; and a sixth, measuring $1\frac{1}{8}$ inch in diameter (fig. 15, No. 3), was found on the floor-level of the building in front of Room I. There is nothing to show what purpose these discs served, but it seems likely that they were used in a game.

Tablets of Slate worked in Graffito.—Some twenty-nine pieces of slate were recovered, found distributed all over the excavated area.

In many instances the marks are very faint. As a rule they have been produced with a blunt-pointed instrument, but occasionally a knife-point appears to have been used. A scheme of squares formed by

¹ *Proc. Soc. Ant. Scot.*, vol. xlviii. p. 338; vol. l. p. 312.

intersecting lines seems to have been the general motive aimed at, and occasionally this has been partially scored out with cross lines (fig. 17, Nos. 3 and 4). One slate only appears to be approximately complete (fig. 16, No. 1). It is in form oblong, measuring $3\frac{3}{4}$ inches by $1\frac{1}{2}$, and it

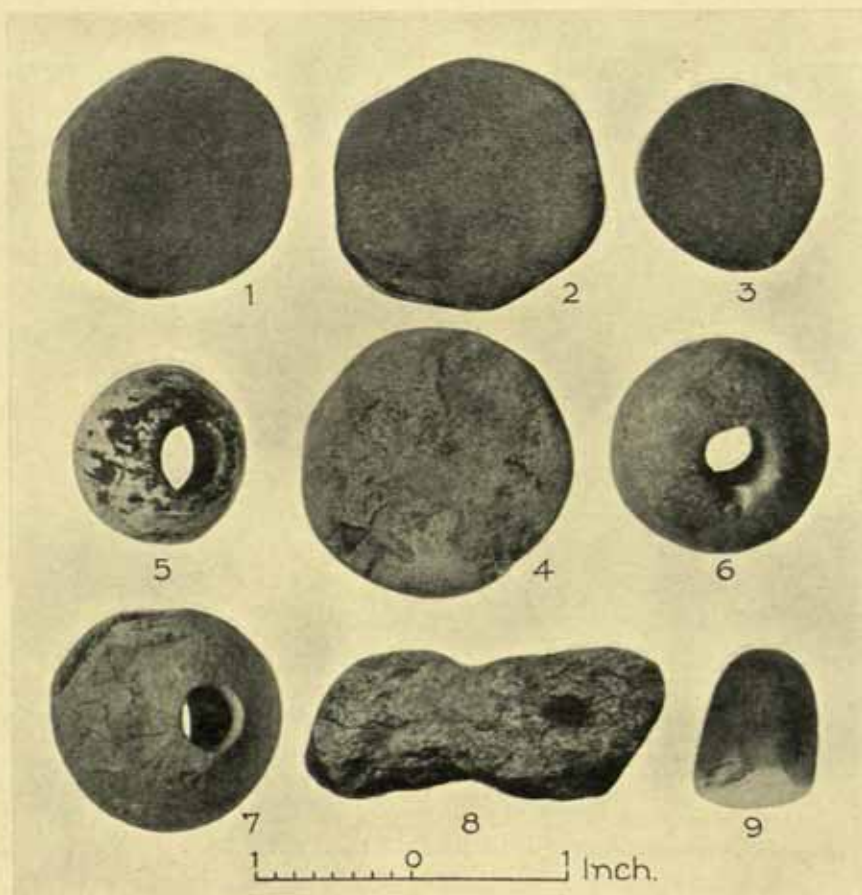


Fig. 15. Miscellaneous Objects of Stone and Perforated Femur.

has been divided into fifty-six compartments by longitudinal and transverse lines. There are no markings within the squares.

There is one fragment (fig. 16, No. 3) on which are incised markings quite different from any met with previously. The surface has been divided into two by a deeply scored line running lengthways of the stone. The division to the right has been filled with an ornament

which resembles scales, or links, placed vertically, with a transverse band towards one end. The other division, which remains plain towards the broader end of the fragment, has been divided at the upper end into five divisions by cross lines. The lower two have been filled with

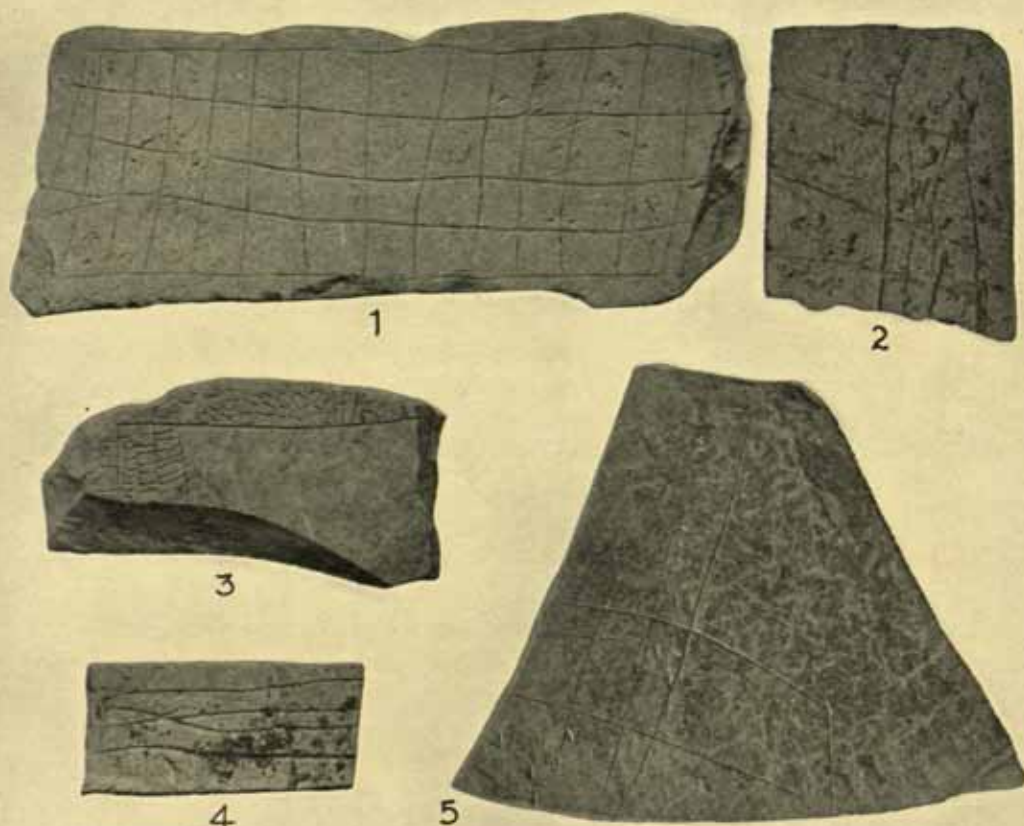


Fig. 16. Slates with Markings in Graffito. (1.)

vertical strokes, that immediately above with a series of C curves; the next above with carefully cut vertical lines, with a space left between the first line on the left and the second, into which has been inserted, adjacent to the first stroke, a C curve adhering to the upper divisional line, while all that remains of the graffiti in the upper division are some portions of oblique and vertical lines. There is a suggestion in the

series of horizontal lines with their distinctive markings that this slate may be a portion of a record or tally. It was found on the wall-head of Viking House No. I during solidifying operations in the autumn of 1935. No. 2 on the same fig. as the last shows also the scheme of

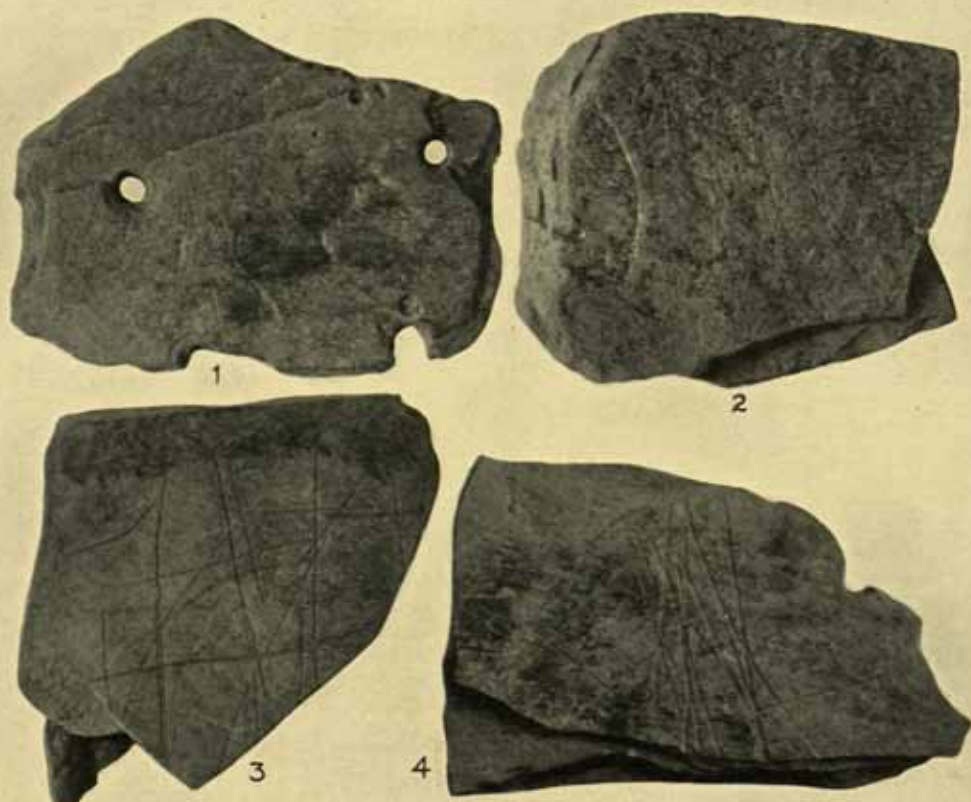


Fig. 17. Slates with Markings in Graffito. (3.)

squares. No. 5 shows a somewhat different arrangement of lines, quite enigmatical.

Two of the slates have been perforated. Fig. 18, with three perforations, has a series of graffiti apparently radiating from a point and crossed by a single stroke, in the lower left corner, and is pierced by three holes, approximately in alignment, along the opposite edge. Fig. 17, No. 1, shows four perforations of larger diameter.

Whorls.—Only two whorls (fig. 15, Nos. 5 and 6) fall to be recorded, and neither came from last season's excavation. Both were found on the wall-head of Viking House No. I during solidifying operations in the autumn of 1934.

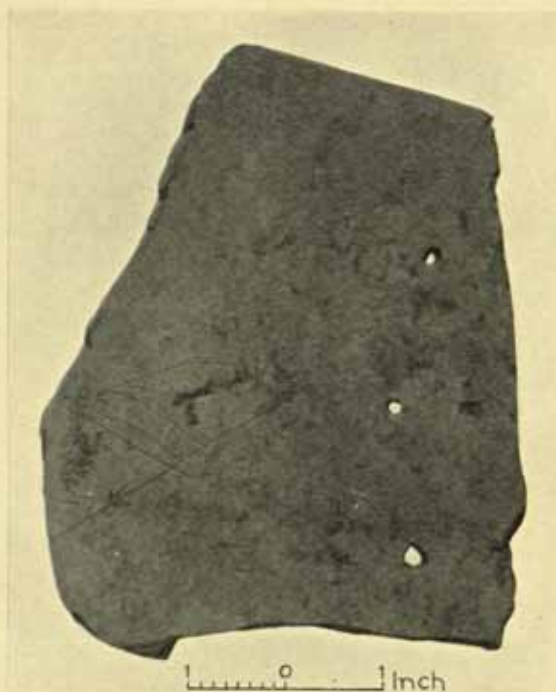


Fig. 18. Perforated Slate. ($\frac{3}{8}$.)

In conclusion I desire to tender my thanks to those who took part in the excavations, and to Dr Graham Callander and Mr A. J. H. Edwards, who assisted in the production of this and the other reports of last season's work. Among the former was my son Mr A. T. Curle, M.B.E., and Mr and Mrs Peter Murray Threipland. Finally, as in all the previous seasons, I had cause to appreciate the services of the members of the Office of Works and the zeal and intelligence of the staff of local workmen.

IV.

NOTES ON (1) THE PARISH CHURCH OF FALKIRK, AND (2) A FOOD-VESSEL FOUND AT CAMELON. BY R. L. HUNTER, F.S.A.SCOT.

The present Parish Church of Falkirk dates almost entirely from 1810. At this time the pre-Reformation building was found to be too small to serve the population of the parish, which had increased greatly with the growth of industry after the founding of Carron Iron Works. The church, which was of cruciform plan, was completely destroyed with the exception of the tower built over the crossing and which was carried on four piers situated at the angles of the walls formed by the transepts. The space below the arches of the crossing was built up, and the area thus enclosed became the entrance hall of the new church, which was erected to the north of the original site.

The lower part of this tower is the only bit of the existing fabric which is pre-Reformation in date. It is almost entirely embedded in later work, but a small part of the north faces of the two southern piers can be seen in doorways. They appear to be of fifteenth-century date, with keeled shafts and the usual mason's marks. The upper part of the tower was rebuilt in 1740, and has the projecting quoins of the period, though the buttresses of the earlier building can be seen projecting from the deeper eighteenth-century work. At this period the steeple was re-erected in stone instead of in timber and slate as previously. Some years ago a door was driven through the south face of this tower about twenty feet from the ground, exposing the mediæval mortar and oyster-shell pinnings.

In the *Falkirk Monthly Magazine* of 1827 there is a drawing of the old church as it appeared shortly before its demolition. It had the cruciform plan common in Scotland in the fifteenth century, but the doors and windows seem to have been largely replaced during the seventeenth and eighteenth centuries by the square-lintelled type. The south transept, however, still retained a fine five-light window, with simple tracery, in its gable. There was also in existence some years ago a plan of the old kirk and kirkyard, prepared by John Shaw and dated 3rd September 1788. It was then in the possession of the Kirk Session but now seems to have completely disappeared.

Both the transepts (but not the nave or the chancel) were overlaid with stone slabs.¹ A few fragments of these vaults have been preserved, including two carved corbels and a fine boss which bears the arms of the Livingstones of Callendar. The snake which is the family crest is shown twining round the shield. In 1810 the boss was taken to West-quarter House by Sir Thomas Fenton Livingstone and built into the garden wall. It was restored to the church last year.

The corbels represent human heads, one male and one female, and are assigned by Mr J. S. Richardson to the first half of the fifteenth century.

The south transept served as a chapel for the Knights Hospitallers, who owned the property on the south side of Falkirk High Street. The north transept was probably dedicated to St Michael the Archangel, for there is a charter of James VI., dated 21st December 1580, confirming one by James Oswald, Chaplain of the Aisle of St Michael the Archangel in Falkirk Parish Church, by which he passed on to his nephew four crofts in Stirling belonging to the chaplainry, with the consent of the Patrons of the Chaplainry, namely, the Lyon King and the two Royal Heralds. Robert Kier, writing in 1827, says that "the Livingstones of Callendar buried their dead within the South Aisle of the old Kirk of Falkirk." On the other hand, a visitor to Falkirk in 1697 says: "On the North side of these isles (*i.e.* the transepts) are coates of armes not very visible what they are, but said to be the coates of Livingstones." The former is probably the correct statement as the connection of the Livingstone family with the Order of St John was close. Sir Henry de Livingstone, son of the second Livingstone lord of Callendar, was Preceptor of the Order in 1463, shortly after this chapel was built, and the last chaplain, who died in 1575, was also a Livingstone.

In the two groups of later effigies, the male figures are on the sinister side, indicating that they came from tombs situated on the south side of the kirk. It is therefore possible that their monuments were situated in the south transept and underlying the great window. The arch over each recess forms a canopy over the effigies.

There is in the possession of Miss McLuckie, Falkirk, a stone which almost certainly came from the Parish Church of Falkirk. It bears a shield displaying the emblems of the Passion.

Falkirk can also show two interesting examples of faked antiquities. They were produced in 1810 as having been found during the taking down

¹ Stone slab roofs were usually set on plain barrel-pointed vaults, but sometimes these vaults were ornamented with false ribs, as at Seaton Collegiate Kirk. It would be difficult, however, to work in a boss like the large one. May this not have come from the rib-and-panel vault of the crossing? If there was a rib-and-panel vault here, presumably it was taken down in 1810. The carved corbels might have come from the transepts; if this is so, there must have been "false-vaulting."

of the old church, and were used as evidence in a legal case between the minister of the parish and the laird of Callendar. Their real origin will probably never be known, but they do not appear to be much older than the date of their alleged discovery. The first is now built into the wall of the church, and bears the following legend:—

FVNDATVM / MALCOMO. III / REGE. SCOTIAE / A.M. † 1057

There is no other evidence connecting Malcolm III. with this church.

The other exists only in the form of a replica in cast iron, and reads as follows:—

**FVNERATVS / HIC DEIN / ROB GRAHIM / ILLE EVERSVS / VALL.
SEVERVS / A.C. 415 / FERGVSVS II / R. SCO.**

A stone which is said to have formed part of the well-head near the town steeple seems to have been originally a gargoyle of mediæval workmanship, and if so, no doubt also came originally from our Parish Church, as the only large ecclesiastical building within a wide area.

The site of the chancel of the old church is occupied by the vault of the Zetland family, as owners of the Estate of Kerse. It seems that the chancel, or at least the eastern part of it, was never used as part of the church since the Reformation, but was "separat from the body of the kirk and queire thairof by ane rail of three ells hight." In 1645 there was a dispute between the Kirk Session and Lady Hope of Kerse, who wished to bury her daughter in the family burying place in this part of the church. The Session objected, as they had previously enacted that no bodies were to be buried within the kirk, but the Provincial Assembly of Lothian and Tweeddale ruled that "as the people hes never mett nor sat within the samen for hearing of the word and receaving of the sacraments past memorie of man" the Session could not "impede the owners in the frie use of the said ile."

When the church was rebuilt, some objectors to the change of site pointed out that the "scite" of the new church could not be made suitable "without digging up many corps." The reply was that "these belonged to persons of small consideration and the magistrates of Stirling lately repaired the church of the burgh, and removed the ashes of kings as well as other illustrious personages and deposited them in another situation."

The external monuments have survived the passage of time rather better than the church itself.

The oldest is a carved crosshead of late Norman workmanship (fig. 1), dated by Mr J. S. Richardson as about A.D. 1200 and fully described in a paper given by me to the Scottish Ecclesiological Society last year. It has lain in the porch of the church for at least thirty or forty years.

and there is no record of when and where it was discovered. It may have been a sanctuary or boundary cross.

In the churchyard is the reputed tomb of Sir John de Graham, slain at the battle of Falkirk in 1298. The original stone has an effigy of a knight in armour. This was covered by a second slab in order to preserve



Fig. 1. Head of Cross—front and back.

it from further attack by the weather, and the arrangement was repeated until there are now four slabs. One bears the couplet:

Here lyes Sir Jhonn the Greme baith wight and wise
 Ane of the chief rescuit Scotland thrise
 An better knight not to the world was lent
 Nor was gude Greme of trueth and hardiment
 Anno 1298

At a little distance from this tomb is a stone which is said to cover the remains of Sir John Stewart, also killed at the battle of Falkirk. This stone is simple, without carving or inscription, and may well be of this date.

Two effigies, obviously mediæval, lie at present in an arched monument on the north wall of the churchyard. This monument is dated 1723, and was erected by George Preston of Valleyfield for his grandparents, Thomas Murehead of Rashey-hill and his wife. The effigies represent a man in civilian dress and his wife. They are carved from a single block of sandstone 6 feet $\frac{1}{2}$ inch long by 27 inches wide. Both figures have the hands joined in prayer on the breast, and the wife's left arm overlaps her husband's right. The dress is very simple, and is almost exactly the same for both figures. It consists of a cloak or mantle with low V-neck and opening down the front. In the wife's case the left side is draped over the right, and the husband's the opposite way,

to give a symmetrical effect. The sleeves are moderately wide. The wife's feet are bare, and probably so were the husband's, but the stone is badly worn at this part. The feet rest simply against the end of the block, without cushion or supporting animal.

The woman appears to be wearing a wimple, and the man has curly hair cut straight down from the brows nearly to the neck, almost like a wig, completely covering the ears. There seems to have been a small beard under the chin.

Nothing is known of their history, nor of how they came to be in their present position.

The other two pairs of effigies have been mentioned by previous writers (see *Proceedings*, vol. xxix. p. 390), but, as far as I know, no one has attempted to identify the persons commemorated. I am indebted to Dr Mackay Mackenzie for assistance in dating, and thus in identifying, the figures.

The first pair of effigies date from the third quarter of the fifteenth century. They are much worn, especially the male figure, due to their having lain neglected and exposed to the weather and accidental damage in the churchyard for over forty years. The head is completely worn away, but the breastplate bears very faint traces of what may have been a coat of arms. Below the breastplate are the overlapping plates known as taces, covering the hips, round which is a broad ornamental belt which carries the sword. There is no sign of the additional diagonal belt which came into fashion later. The sword has fairly short, curved quillions. The plate on the genouillières for protecting the back of the knee is unusually large.

The lady's dress consists of a close-fitting bodice from which the skirt hangs in folds, and a mantle from the shoulders almost to the ground.

As the Livingstones of Callendar were by far the wealthiest and most important family in the Parish of Falkirk throughout the mediæval period this effigy most probably represents a member of that family. Sir Alexander Livingstone, Guardian of King James II. and Justiciary of Scotland, died in 1451, and his son, first Lord Livingstone of Callendar, Great Chamberlain of Scotland, died in 1467. Either of these two persons would fulfil the requirements as to date.

The second pair of effigies, though much more worn even than the first pair, are obviously at least a century later in date. The upper arm and the thigh of the male figure are protected by overlapping plates. The sword, however, is very similar to that of the first figure, as it has a simple cross-hilt with curved quillions. The female figure has puffed-out sleeves and a low head-dress, with a curious groove round the waist.

Assuming that these figures also represent Livingstones of Callendar, the most likely person is William, sixth Lord, who died in 1592. His father, who died in 1550, has a tomb elsewhere in the church, and his son, who died in 1621, is rather late for our period.

Two grave slabs in the porch are of considerable interest.

The first bears a rather crudely cut coat of arms, in which the arms of Livingstone of Callendar are impaled with two other coats, presumably the arms of two wives of the person commemorated. The Livingstone arms lack the tressure. The arms on the second quarter seem to consist solely of a label of three points, and the fourth quarter shows something resembling a rose or cinquefoil, with three mullets on a chief.

The lettering is much worn, but clearly refers to someone who spent his later life at the Court of the King of France (PROVECTAM AETATEM IN AVLA REGUM GALLIE). It is therefore almost certain that this stone commemorates Alexander, fifth Lord Livingstone of Callendar, who was Guardian of Mary Queen of Scots in her youth, and died in France in 1550. He was twice married, first to Janet Stewart (probably of the Menteith Stewarts, who carry a label of three points on their arms), and secondly to Agnes Douglas, daughter of the second Earl of Morton. The arms in the fourth quarter of the shield probably represent the Douglas arms, but if so the heart has been very carelessly cut.

The second slab is more difficult to assign to any family. It is dated 1690, but most of the inscription is undecipherable. The arms, a fess between six mullets, with the letters R.I., differ from any recorded coat, but may refer to some member of the family of Innes, whose arms are not dissimilar.

I have to acknowledge the great help I have received from Professor Hannah, from Dr Mackay Mackenzie, from Mr J. S. Richardson, and as regards the heraldry, from Sir Francis Grant, Lord Lyon King of Arms.

FOOD-VESSEL FOUND AT CAMELON.

An urn of Bronze Age food-vessel type was unearthed last summer by a workman engaged in excavations for a new housing scheme on the outskirts of Falkirk (fig. 2). The exact spot is at the western end of the suburb of Camelon, a few yards south of the main road to Glasgow.

The vessel is of reddish pottery, and is intact. It is $4\frac{7}{8}$ inches high and $5\frac{1}{2}$ inches in external diameter. The outer surface is ornamented by a series of rouletted lines, mostly arranged in a sort of arrow-head

design, which have been made by an instrument impressed on the clay while still soft.

The vessel was found at a depth of about 3 feet below the surface of the ground, in sandy soil. Two or three rounded boulders (not slabs),



Fig. 2. Food-vessel from Camelon.

about 12 inches to 18 inches in diameter, were found at the same time, but did not seem to be arranged in any formation, although they could scarcely occur naturally in this type of soil. There was nothing in the nature of a cist.

The vessel is now in the Museum at Falkirk.

V.

LATE BRONZE AGE CEMETERY: BEING AN ACCOUNT OF THE
EXCAVATIONS OF 1935 AT LOANHEAD OF DAVIOT,
ABERDEENSHIRE, ON BEHALF OF H.M. OFFICE OF
WORKS. BY H. E. KILBRIDE-JONES, F.S.A.Scot.

In the account of the excavations of 1934 at the stone circle at Loanhead of Daviot ¹ attention was drawn to the secondary character of the short cist (to the east of Minor Cairn No. 8), its contents, and its covering structure. Excavation had perforce to be discontinued following the discovery of the cist, owing to the lateness of the season; and work was therefore continued last season at the point where it was discontinued in 1934, the object being to discover the limits of the cairn-like structure covering the short cist. Almost at once we came upon the late Bronze Age cemetery, although its presence was entirely unsuspected. Fortunately the ruined mediæval earthen dyke ² lay directly across the diameter of the cemetery, thereby assisting in the preservation of the site. Unfortunately, it was necessary entirely to remove it before work could proceed.

The cist proved to be situated immediately on the edge of the cemetery. It was not included within the cemetery, but served, so to speak, as a link between the early Bronze Age (the period of the Stone Circle) and the late Bronze Age (the period of the cemetery), being itself of middle Bronze Age date; for it was clear that it was a later addition to Minor Cairn No. 8 of the Stone Circle. It will thus be observed that the dividing line of large stones, noted in 1934, was in reality a division, as tentatively suggested at the time; the people who constructed the cist and its covering structure wanted a definite line of demarcation between it and the stone circle. When we study later the pottery from the cemetery we shall discover that the North-Eastern Bronze Age remained apparently uninterrupted from its earliest period to its latest.³

The removal of the mediæval earthen dyke revealed more stones of the cairn-like structure to the north-east. With the addition of these newly discovered stones the area formerly occupied by the cairn-like

¹ *Proc. Soc. Ant. Scot.*, vol. lxix. pp. 168-223.

² *Ibid.*, p. 192.

³ Apart, that is, from an intrusive element to be noted later.

structure seems to have been roughly 16 feet by 12 feet. Taking into consideration the above facts, and the interruption here of the cemetery dyke, it seems probable that the structure covering the cist was actually a cairn, which, rising to a height of perhaps 4 or 5 feet, would render a dyke unnecessary at this point.

LATE BRONZE AGE CEMETERY.

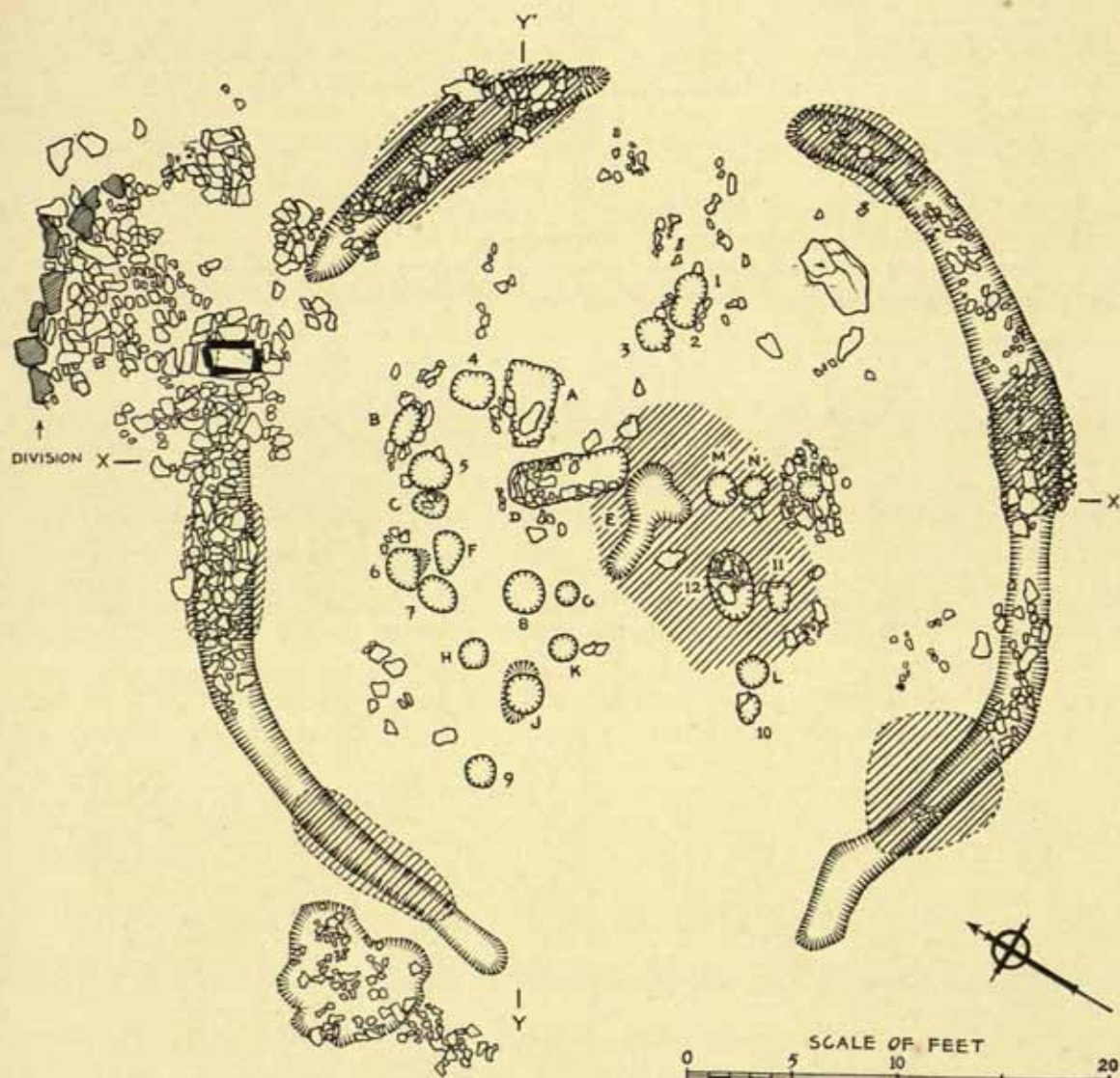
The cemetery to be described is the first of its type, and the first to be found adjacent to a stone circle. It is possible, however, that cemeteries may later be discovered adjacent to other stone circles, since Cinerary Urns were discovered to the west of and just outside the stone circle known as Druid Stones, near Inch.¹ This coincidence, and the fact that sporadic finds (such as cists and urns buried singly) have often come to light in the neighbourhood of stone circles, should encourage systematic exploration of the surround of a stone circle.

We know that, as the Bronze Age progressed, it became common for later generations to bury their dead within some part of the structure of cairns of early Bronze Age date; and in this way some cairns became the repositories of numerous secondary burials. This could hardly have been considered to be a satisfactory method of disposing of the dead, so that we might be justified in regarding the circular cemetery to be the result of a natural transition from the round cairn to a flat burial ground. In both cases, burials were scattered indiscriminately around a primary interment.

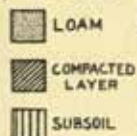
The area within the boundaries of the cemetery at Loanhead of Daviot had been cleared of all superincumbent soils down to subsoil level prior to its being utilised as a place of interment. This is in direct contrast to the area occupied by the covering cairn of the short cist, where the cairn stones had been placed upon a stratum of about 3 inches of hard, reddish-brown soil, in the same manner as the minor cairns of the Stone Circle.

The limits of the cemetery were defined by a circular boundary ditch, which varied considerably in depth and width: the maximum depth was 10 inches, and the minimum, on the west side, less than 3 inches, whilst the width, from being no greater than 1 foot 6 inches on the west side, increased to a maximum of 3 feet 6 inches on the east side. The ditch was interrupted in three places: on the north-east and south-west sides for distances of 8 feet 9 inches and 13 feet 6 inches respectively, to provide entrances to the cemetery within, and on the north side to avoid the cist and its covering cairn. This indicates conclusively that

¹ *Proc. Soc. Ant. Scot.*, vol. xxxv, p. 239.



LEGEND



H.E. KILBRIDE-JONES, MENS ET DEL

Fig. 1. Plan and Sections of late Bronze Age Cemetery at Loanhead of Daviot.

the cist and its covering structure antedate the cemetery, a contention upheld by the contents of the first, namely, an Incense Cup which in reality is a diminutive Food Vessel.

A dry-stone dyke enclosed the cemetery. The foundations of the dyke were laid within the boundary ditch, so that the dyke was confined within its limits. The dyke, the stones of which were vertically placed, still remained to a height of 1 foot 10 inches on the north-west side



Fig. 2. Section of Stone Dyke enclosing Cemetery, with foundation ditch in foreground.
(Note.—Stones on right have been removed from ditch.)

(see fig. 2), but elsewhere it was very ruinous, and in many parts (as on the west side) entirely absent. It is to be regretted that it was so ruinous near the entrances.

The south-west entrance seems to be slightly out-turned; and to the left, on entering, is a peculiar, irregularly shaped artificial depression, which had been picked out of the soft rock to a depth varying from 3 to 5 inches. Within this depression were found the remains of a construction, which must have toppled over in a southerly direction. Its nature, of course, cannot be determined; and there was no corresponding structure, or depression, on the opposite side of the entrance, neither were there any analogous structures near the north-east entrance.

Scattered over the floor of the cemetery were numerous stones (all

marked on plan). Probably all were dyke stones. It would seem that there had been a partial collapse of the dyke on the south side during the early history of the site, since stones, which had obviously fallen inwards, lay directly upon the cemetery floor.

One may presume that the floor, from having been at first of cleared subsoil, would gradually have accumulated an even layer of fine, blown soil. This would explain why the soil covering the cemetery floor was noticeably free of small stones. The hard reddish-brown layer, which was so typical of the stone circle site, was here entirely absent.

EVIDENCE OF FIRE.

At certain points in the boundary ditch (marked by diagonally hatched areas on the plan (fig. 1)) considerable evidence of fire was noted. Fires had been kindled on either side of each entrance, and also midway between those entrances on the south-east and north-west sides of the cemetery, making a total of six fires. The areas upon which these fires had once burned were clearly identifiable by the reddening of the subsoil, and also by the large amount of charcoal and ash which was found. All the fires, with one exception, had been kindled within the limits of the ditch; the exception is that on the east side of the south-west entrance. And just as the fires had died down, so were they left when the dyke was built over them.

On the plan (fig. 1) appears a large central, diagonally hatched area. Here the subsoil had in places been burnt an intense red, and toward the north end of the area charcoal and ash were found to a depth of 2 inches. Amongst this ash, minute particles of calcined human bone were numerous, whilst toward the middle of the area an amount of larger calcined human bone was found. There can be no doubt that here had been lit the pyres upon which had been cremated the remains of those interred within the cemetery. The reddened soil covered an area of 12 feet 6 inches by 9 feet 6 inches, and since the soil was redder and the ash deeper at the north end, it is probable that the area itself grew in length and breadth with the increase of the number of cremations.

BURIALS.

In the exact centre of the cemetery is a curiously shaped shallow pit (fig. 3; and E on plan, fig. 1), exactly 6 feet long and barely 5 inches deep. It is orientated east and west; and at the west end for a distance of 2 feet 11 inches it is narrow, being no more than 1 foot 7 inches wide. Suddenly, however, it expands, mostly in a southerly direction, to a greatest width

of 3 feet 6 inches, and then tends to narrow again at the east end. It was filled entirely with the charcoal and ash of the pyre; but on the bottom cremated human bones were found, flat bones of skull being discovered at the east end, the remains of a pelvis about midway from east to west, and clearly distinguishable leg-bones at the west end. In the south expansion cremated bone was also found, and at the very edge of the south expansion a pendant of sandstone (fig. 10, A), measuring $1\frac{3}{4}$ inch long by $1\frac{7}{16}$ inch wide, was discovered. We may regard this as the initial interment.

There is really no means of determining in what order the remaining interments took place, although in the case of those within urns of a single type it is possible, from the later study of development, to discover in what order those urns were buried. But their number is small. For the present the burials will be considered in the order in which they are numbered on the plan, fig. 1.¹

Burials Nos. 1 and 2 (fig. 5, A) were contained within two inverted Cinerary Urns of the enlarged Food Vessel type.² Both urns and their contents had been buried within a double pit. Urn No. 1 contained the cremated remains of a child, aged three to four years,³ whilst No. 2 contained the remains of an adult. Presumably this was parent and child, who had been buried together. The double pit contained pure yellow earth, which was barely distinguishable from the surrounding subsoil. The diameter of each pit was 1 foot 6 inches and greatest depth 9 inches.

Barely 6 inches away was Burial No. 3, also contained within an inverted Cinerary Urn, this time of the overhanging rim type. The urn contained the cremated remains of an adult. The pit was of diameter 1 foot 7 inches and was 8 inches deep. It was filled with dark soil,

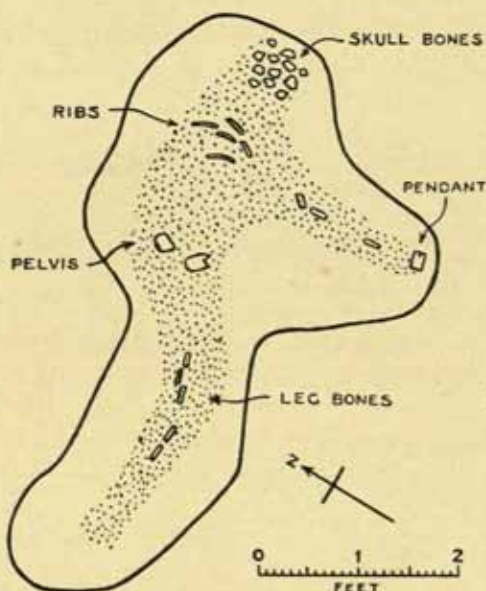


Fig. 3. Sketch Plan of Burial E (primary interment in centre of Cemetery).

¹ The plan and section of each individual pit will be found in fig. 4.

² Discussion of the urns themselves is deferred, and appears under the heading "Pottery."

³ See Professor Low's Report in Appendix I. for particulars of the human remains.

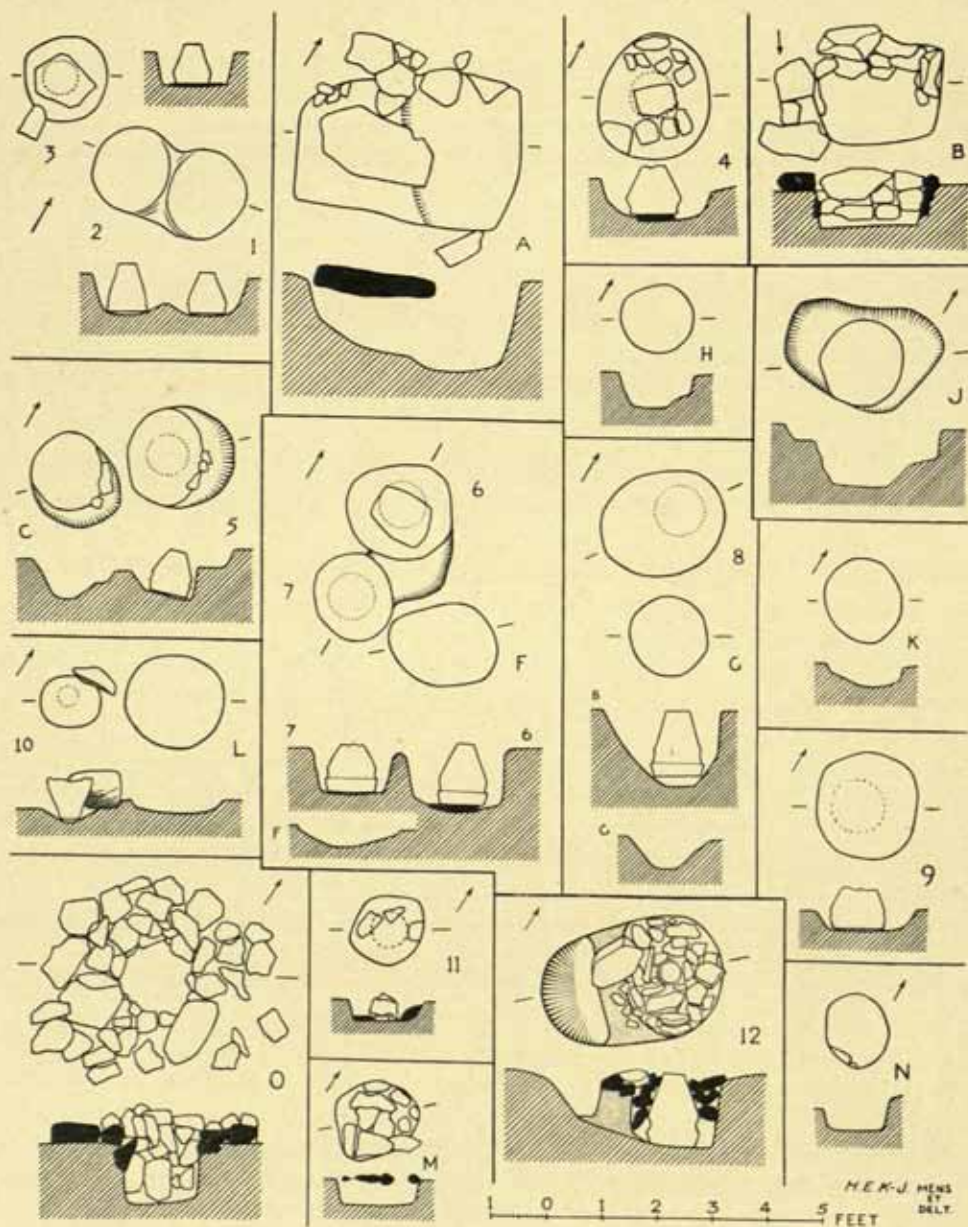


Fig. 4. Plans and Sections of Pits. (Arrows indicate N. point.)

and upon the base of the pit was a stone 11 inches long by $9\frac{1}{2}$ inches wide upon which the mouth of the urn rested.

Pit A was 4 feet long, 2 feet 8 inches wide, and 1 foot 10 inches deep. Along the north-west edge were numerous stones, and lying more or less centrally at floor-level was a large stone, 2 feet 2 inches long by 1 foot 2 inches wide. The pit was full of dark soil, the top layers of which contained an amount of ash and charcoal. Altogether, seven individuals had been interred here, one of whom was a child. At the bottom, at the north-east end of the pit, was a depression, as though it had perhaps been scooped out as an afterthought. This hollow contained the cremated remains of an adult, which had been carefully covered over with yellow soil, hard packed, and barely distinguishable from the base of the pit at the south-west end. Thereafter the cremated remains of the remaining six individuals had been thrown in, more or less in two lots, the whole pit being subsequently filled with dark soil, and ash gathered from the pyre had been thrown in at the uppermost level.

Burial No. 4 (fig. 5, B) was that of an adult, whose cremated remains were contained within an inverted Cinerary Urn of the enlarged Food Vessel type. The pit was oval, being 2 feet 3 inches by 1 foot 11 inches, and it was 9 inches deep. It was filled with clean, yellow soil. The mouth of the urn rested on a stone measuring 9 inches by 7 inches, and this stone was surrounded by eleven others, most of which had been carefully laid around it, to provide, presumably, a paved base to the pit.

B was a peculiar quadrangular-shaped pit and was 2 feet 3 inches long, 1 foot 7 inches wide, and 9 inches deep. It was orientated east and west. Round it, upon the cemetery floor, were several stones, apparently not *in situ*. The south side of the pit was carefully lined with stones of different sizes, whilst the west and east sides were lined for half their length only, at those ends abutting the south side. The remaining north side was unlined. On the base of the pit were the cremated remains of an adult. The pit had been filled with dark soil, the top layers of which contained an amount of ash.

Burials No. 5 and C were juxtaposed in such a way as to suggest that the two pits had been dug at the same time. Both pits have been hurriedly and crudely dug; in both cases small stones embedded in the subsoil seem to have restricted the diameters of the pits. These small stones could have been removed with very little trouble. The inverted Cinerary Urn, of overhanging rim type, found in Pit No. 5, although small, contained the cremated remains of two adults. The urn was packed in with dark soil containing a small amount of ash. Pit No. 5 was 1 foot 10 inches in diameter and 11 inches deep in the centre. Pit C,

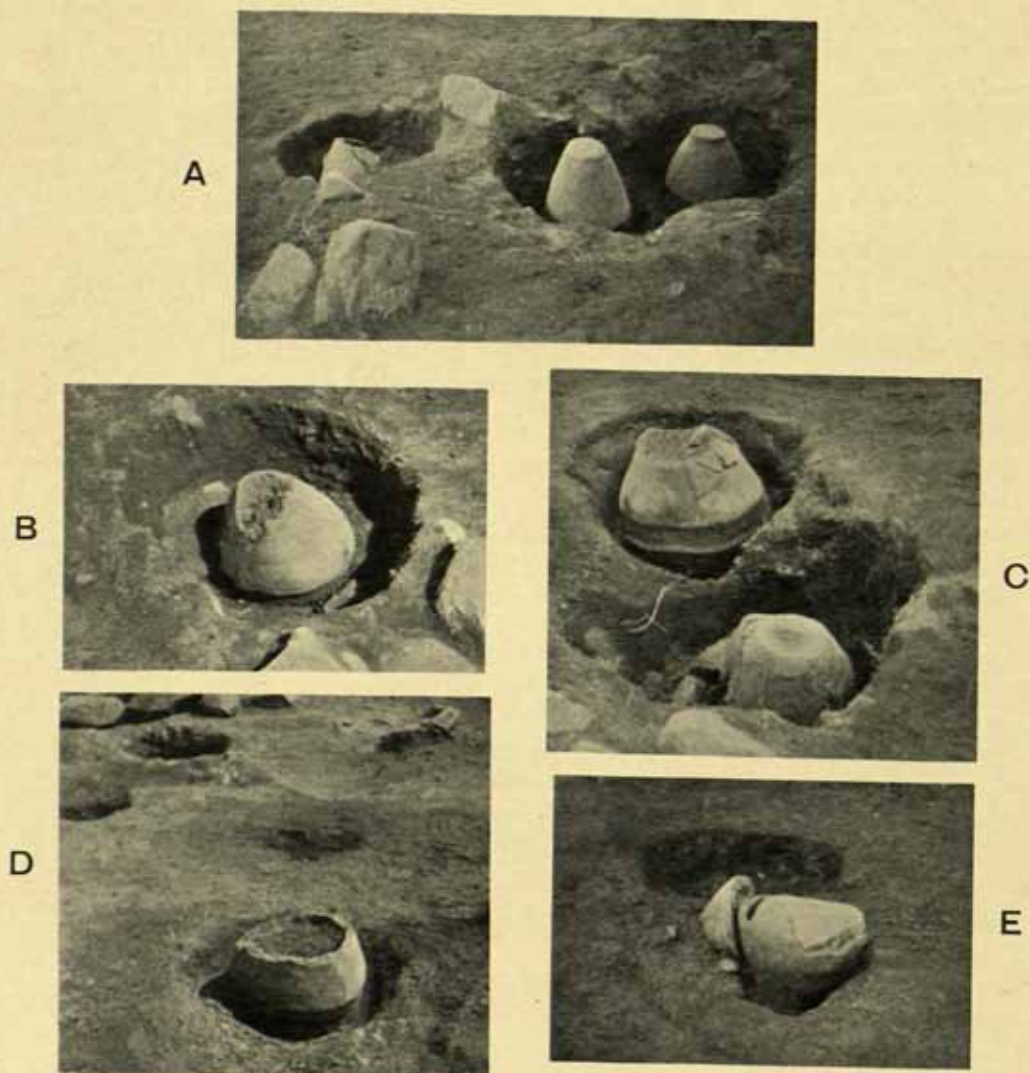


Fig. 5. (A) (reading from right to left) Urns Nos. 1, 2, and 3; (B) Urn No. 4; (C) Urns Nos. 6 and 7; (D) Urn No. 9; (E) Urn No. 10, showing stone closing mouth, and ash-pit L. beyond. All urns *in situ*. (The numbers of the urns correspond to the numbers of the burials.)

which was 1 foot 8 inches in diameter and 9 inches deep in the centre, contained the cremated remains of an adult, and the bones were mixed with the dark soil and ash with which the pit was filled. At floor-level there were three small stones placed more or less centrally on the top of this filling.

D was a trough-like pit, 6 feet long and 2 feet 5 inches in breadth at the widest point. It varied greatly in depth, being 9 inches at the south-east end, but it became deeper towards the north-west end, where it was 1 foot 1 inch deep. It contained nothing apart from a large amount of fine dark soil, fairly loosely packed, and numerous stones. The average size of these stones was roughly 8 inches by 5 inches, and they had the appearance of having been gathered up to the south-west side of the pit, some even having been scooped up on to the cemetery floor.

Pits Nos. 6 and 7 (fig. 5, C) each contained an inverted Cinerary Urn of the overhanging rim type. Pit No. 6 was 1 foot 10 inches in diameter and 1 foot 2 inches deep; Pit No. 7 was 1 foot 6 inches in diameter and 11 inches deep. Urn No. 6 was inverted over a stone measuring 1 foot 1 inch long by 10 inches wide placed centrally on the bottom of the pit. Urn No. 7, however, rested upon carefully smoothed earth at the base of the pit. Each urn contained the cremated remains of one adult. Both pits were filled with dark earth; but the ash gathered from the pyre, instead of having been thrown in in the upper layers, as in the case of certain previous pits, had here been interred in a separate pit, F, hard by. This ash-pit was of irregular shape, measuring 2 feet by 1 foot 5 inches, and it was only $4\frac{1}{2}$ inches deep in the middle.

Urn No. 8, also of the overhanging rim type, was contained in an oval pit measuring 2 feet 3 inches by 1 foot 10 inches. The pit was roughly cone-shaped, being 1 foot 5 inches deep at the centre. In consequence of the shape of the pit, the mouth of the urn rested on the sides of the pit instead of upon the base; and the fact that the two only made contact at odd points had caused the collapse of the urn. The latter contained the cremated remains of an adult. It was packed in with dark soil; but the ash gathered from the pyre, following the actual cremation, had been interred in a separate pit, G, also cone-shaped, of diameter 1 foot 4 inches and 7 inches deep in the centre.

Pit H contained the cremated remains of two children. The bones lay on the base of the pit, which was of diameter 1 foot 3 inches and 8 inches deep. It was filled with dark soil, which also contained an amount of ash. Pit K, which was 1 foot 6 inches in diameter and only $5\frac{1}{2}$ inches deep, contained the cremated remains of an adult. It had been filled mostly with ash. Pit J was rather more elaborate. In the centre it

was 1 foot 1 inch deep and 1 foot 6 inches in diameter. On the base were the cremated remains of a young adult. The pit had been filled with dark earth; but on opposite sides (the north-east and south-west sides) pockets had been made to contain the ash and charcoal gathered from the pyre. The north-east pocket was 6 inches deep, and the south-west $3\frac{1}{2}$ inches.

Pit No. 9, (fig. 5, D), of diameter 1 foot 11 inches, was shallow, being only 4 inches deep; and this fact accounted for the absence of the base and lower walls of the inverted Cinerary Urn of enlarged Food Vessel type which it contained. Within the urn were the cremated remains of an adult. The urn had been packed in with yellow soil mixed with an amount of ash and charcoal, and the shallowness of the pit implies that originally a small mound of soil must have covered that part of the urn protruding above ground. But this mound, together with that part of the urn named above, had been kicked away by early Iron Age folk, as will be seen hereafter.

Urn No. 10 (fig. 5, E), also of the enlarged Food Vessel type, was within the smallest and shallowest pit in the cemetery. It was but 11 inches in diameter and only 3 inches deep; but the urn had been protected on the north side by a stone, measuring 11 inches by 9 inches, set on edge. Apparently the stone had only partly served its purpose, for although the urn was intact below the top edge of the stone, it had been destroyed above it. This was the sole Cinerary Urn from this cemetery which had been buried in an everted position; and the mouth had been closed by a slab of stone, measuring 11 inches by $8\frac{1}{2}$ inches. Had the urn been inverted, it is probable that the stone would have been underneath, for it may be assumed that, in the case of other urns found inverted over such stones, both the stones and urns had been lowered simultaneously into the pit. Urn No. 10 contained the cremated remains of an adult. It had been packed in with clean yellow soil; and an ash-pit, L, of diameter 1 foot 9 inches and 3 inches deep, and barely 6 inches distant, accompanied the burial.

Pit No. 12 (fig. 6) was large in comparison with those previously considered. Originally it had been 3 feet 4 inches long, 2 feet 3 inches wide, and 1 foot 3 inches deep at the north-east end; but it had subsequently been artificially partitioned off, reducing the length to 1 foot 9 inches. That part which had thus been partitioned off was subsequently used as the ash-pit. The pit itself contained an inverted Cinerary Urn, of the overhanging rim type; but, unfortunately, the urn had been packed in with stones (see fig. 6). It was soon evident that the removal of the stones would allow the urn to collapse, the latter being in

a very friable condition, which condition undoubtedly was partly due to the weight of the stones themselves. Subsequently, the base and half of the urn were removed intact. The contents were of more than usual interest: not only did the urn contain the cremated remains of three individuals—an adult and two children—but amongst those remains was found the bone toggle shown in fig. 10, D.

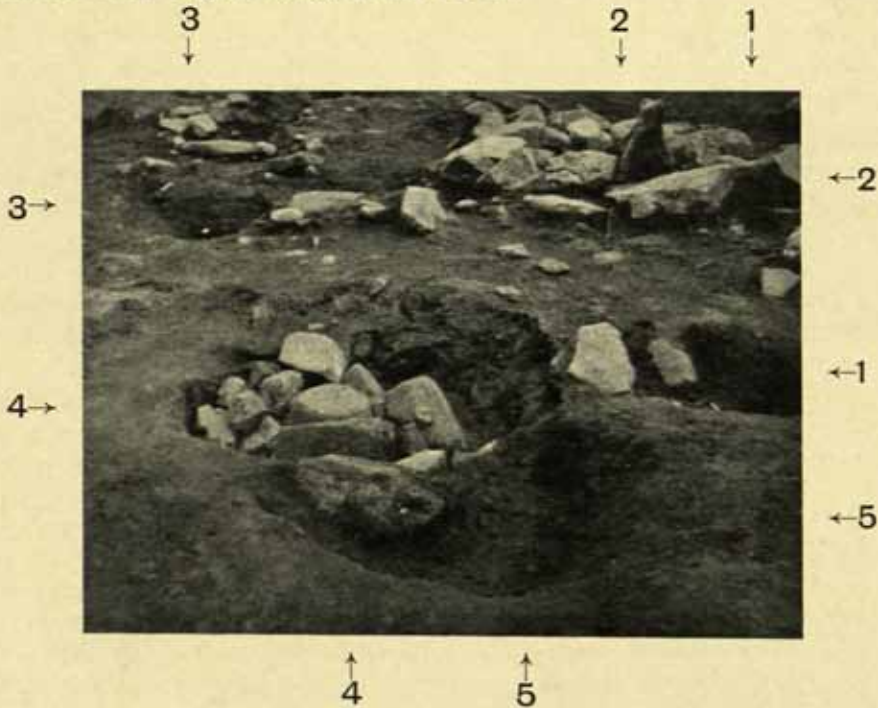


Fig. 6. (1) Burial No. 11 (Iron Age Urn); (2) Pit and Cairn O; (3) Burial M; (4) Burial No. 12, showing Cinerary Urn *in situ*, and packed in with stones, and also artificial partitioning of pit to provide (5) an ash-pit alongside.

A little more than a foot away, and to the south-east, was another pit, No. 11, of diameter 1 foot 3 inches and 5 inches deep. It was rather irregular, and crudely dug; some stones, embedded in the subsoil, protruded on the base, providing an uneven surface for the urn to rest upon. In consequence, this urn, which was inverted and of early Iron Age type, was very fragmentary: the base had collapsed within, and the rim was considerably damaged. Within were the rather scant cremated remains of an adult. The urn had been packed in with very dark soil, containing much ash and minute pieces of charcoal. Like No. 12, this pit was situated within the limits of the pyre.

Two other pits situated within the limits of the pyre were M and N. The former was of irregular shape, being 1 foot 6 inches in greatest diameter and $5\frac{1}{2}$ inches deep; the latter was 1 foot 2 inches in diameter and 5 inches deep. The walls of both had been carefully squared up with the bases. Pit M, which contained the cremated remains of a child, was full of black earth and much fine charcoal, and at floor-level the whole had been covered with stones carefully fitted together. Pit N also contained the cremated remains of a child. It, too, was full of black earth and charcoal.

The sole pit to be covered by a cairn was O. The cairn was approximately 4 feet 9 inches in greatest diameter. It consisted for the most part of a single layer of stones, laid directly upon the cemetery floor; but near the centre there was a second layer of rather smaller stones, thus giving a raised effect in the middle. The removal of these stones revealed a stone-lined pit, 1 foot 5 inches in diameter and 1 foot 1 inch deep, situated in the centre of the cairn. The stones which lined the pit had been carefully fitted in, one with the other, and all were secure and earth-fast; but there were considerably fewer stones lining the south side of the pit than was the case with the north side, where they reached almost to the base of the pit. The pit had been filled with dark reddish-coloured soil, fairly hard packed, but its removal revealed nothing—the pit was empty of remains.

The sole object found outside the pits was the portion of a sword-mould (fig. 10, C). It was found against the cemetery dyke, 12 feet 6 inches south-west of the cist, and within the cemetery. It was separated from the subsoil by rather more than 2 inches of soil. Its position suggests that it had been kicked against the dyke, which would further explain its disintegration into four parts, some being 2 or 3 inches apart.

SECONDARY FLOOR.

A floor (upon the "compacted layer" in the sections of fig. 1); corresponding to the secondary floor of the Stone Circle, was found to exist here also. It was 9 inches above the cemetery floor near Pit D, 6 inches above the pyre, and rather more than 3 inches about two feet from the surrounding dyke. Near the dyke itself, earth tended to be slightly heaped. Scattered over this secondary floor, which was clearly distinguishable owing to the compacted nature of the soil, were numerous small and badly rolled sherds of early Iron Age ware. Amongst these were a few rims but no bases. The rims will be illustrated in a subsequent paper: here suffice it to say that amongst them were types representative of

Periods II-IV of the local Iron Age. Also upon this secondary floor, between Pit D and Pit No. 8, were several small sherds of a Beaker, including a portion of the rim. Probably the Beaker had been disinterred from the Stone Circle, and may have come from the Centre Pit, if not from one of the Minor Cairns when these were cleaned out by the early Iron Age folk (as enlarged upon in the first report). On the north side of the south-west entrance, and just within the cemetery, were found three pot-covers, two of a slaty material and the third of granite. The first two were $3\frac{1}{2}$ inches and $2\frac{3}{8}$ inches in diameter, whilst the last was $2\frac{1}{8}$ inches in diameter. All were roughly chipped to shape. Near them was also found a quartz pebble, $2\frac{1}{4}$ inches long, which had been utilised as a hammer-stone, one end being heavily pitted.

POTTERY.

Of the twelve urns recovered, five were of the enlarged Food Vessel (E.F.V.) type, six were of the overhanging rim (O.H.R.) variety, and the last was of early Iron Age date. Of the twelve, those of the E.F.V. type are the most highly decorated, whilst in the case of the O.H.R. type, decoration is confined to two urns only. The Iron Age vessel is quite plain.

Urn Nos. 1 and 4 (fig. 8) are similar with regard to form of rim and outline, but they differ in the matter of decoration. The former is decorated with parallel lines of incisions, made with a spatula $\frac{7}{16}$ inch wide. These incisions were made when the urn was inverted, and from the right, the spatula having been held in the right hand, whilst the pot was slowly revolved by the left hand. Alternate rows of incisions face, for the most part, in opposite directions, giving a rough herring-bone effect. The inside of the rim was similarly decorated with two rows of incisions. The urn is $8\frac{11}{16}$ inches high and $7\frac{1}{2}$ inches wide at the mouth. Urn No. 4, which is $10\frac{1}{2}$ inches in diameter at the mouth and was originally about 11 inches high, is similar, but it is cord ornamented with herring-bone decoration between the rim and shoulder only.

These two urns carry forward the same tradition in regard to form of rim and outline which was represented by the Incense Cup found last year in the short cist. In all essentials the three outlines and rims are the same; only in size and decoration do these vessels differ. Now, the Incense Cup was merely a diminutive Food Vessel, and it further resembles Food Vessels which have been discovered in this region. The present pottery is, therefore, a useful illustration of continuity of tradition unaltered, even with the change of custom. Moreover, the

only two parallels to urns Nos. 1 and 4 come from Bridge of Banff (same herring-bone pattern but with incisions closer spaced) and from Abden, Kinghorn, Fife (whipped cord herring-bone pattern, very slight variation of rim). The southernmost specimen of this type comes from Uddingston, Bothwell, Lanarkshire, but here it has undergone slight variation of rim and outline, and the decoration tends to follow that of the O.H.R. type. From the same locality (Kyle Park, Uddingston) comes a rather squat urn, with the same incised herring-bone decoration; but although the outline is similar to the North-Eastern specimens, the rim has been flattened at the edge.

Urn No. 9 (fig. 9) preserves the grooved shoulder of the degenerate Food Vessel. The diameter at the mouth is $12\frac{1}{4}$ inches and the original height was probably in the neighbourhood of 16 inches. This urn also has the simple incised herring-bone pattern for decoration, and here it was accomplished with a spatula $\frac{1}{2}$ inch wide. Urns with similar rims and outlines have been found at Newton of Montblair, Banff (encrusted, with incised herring-bone decoration); Edzell, Forfar (similar decoration to No. 1—rudimentary lugs on groove); Mill of Marcus, Forfar (encrusted, incised herring-bone decoration below rim); Woodhead, Dunning, Perthshire (cord herring-bone pattern, edge of rim slightly flattened); Westlea, St Andrews (rudimentary lugs on groove); Westruther, Berwick (incised herring-bone, rim flattened on outer edge); and from Lintlaw, Berwick (encrusted, incised decoration, flattened edge to rim).

It is thus obvious that, not only is the herring-bone pattern typical of the E.F.V. type of Cinerary Urn, but the type itself belongs essentially to the North-East. So soon as the form travels south, modification sets in. This ably supports Fox's theory to the effect that the home of the Encrusted Urn (which, more usually, is of the E.F.V. type) must be sought in Scotland.¹ Most probably the Encrusted Urn originated in the North-East.

Unfortunately the present urns from Loanhead give little indication as to which one was buried first. No. 1 was in a deep pit, No. 4 was in a pit of less depth (in proportion to the size of urn), whilst the pit for No. 9 was merely 4 inches deep. The idea has been postulated elsewhere in the present paper, that the level of the cemetery floor would naturally rise with the increase of time, due to accumulations. If this had directly any effect on the depth to which a pit had to be sunk into the subsoil, No. 1 (with No. 2) must have been buried first, No. 4 second, and No. 9 last.² Both urns Nos. 4 and 9 were partly destroyed

¹ *Ant. Journ.*, vol. vii. p. 115 *et seq.*

² These remarks find corroboration in the general discussion.

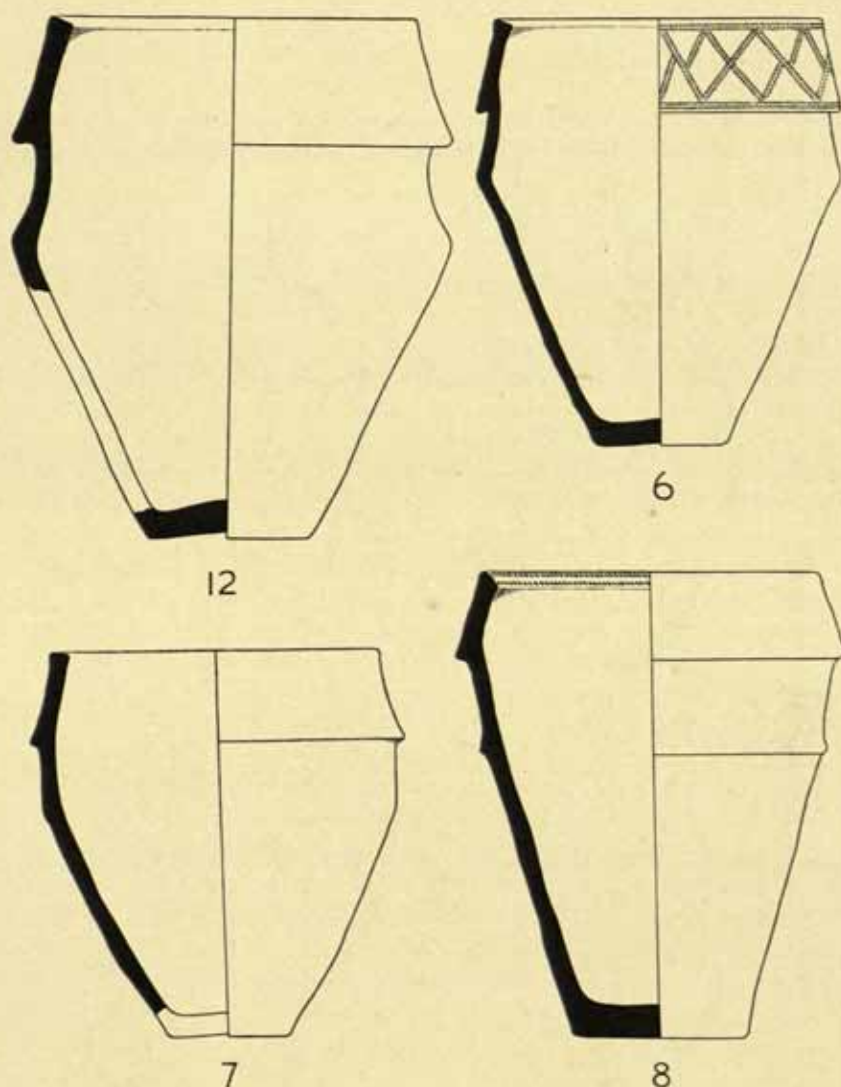


Fig. 7. Cinerary Urns of Overhanging Rim Type. (1.) (Note.—The numbers of the urns correspond to the numbers of the pits in which they were found.)

by Iron Age folk wandering about the area, so that the bases, probably concealed by a covering of earth, must have protruded above the level of the secondary floor; for below that level both urns were intact.

Any theories in regard to form of rim and outline need to be

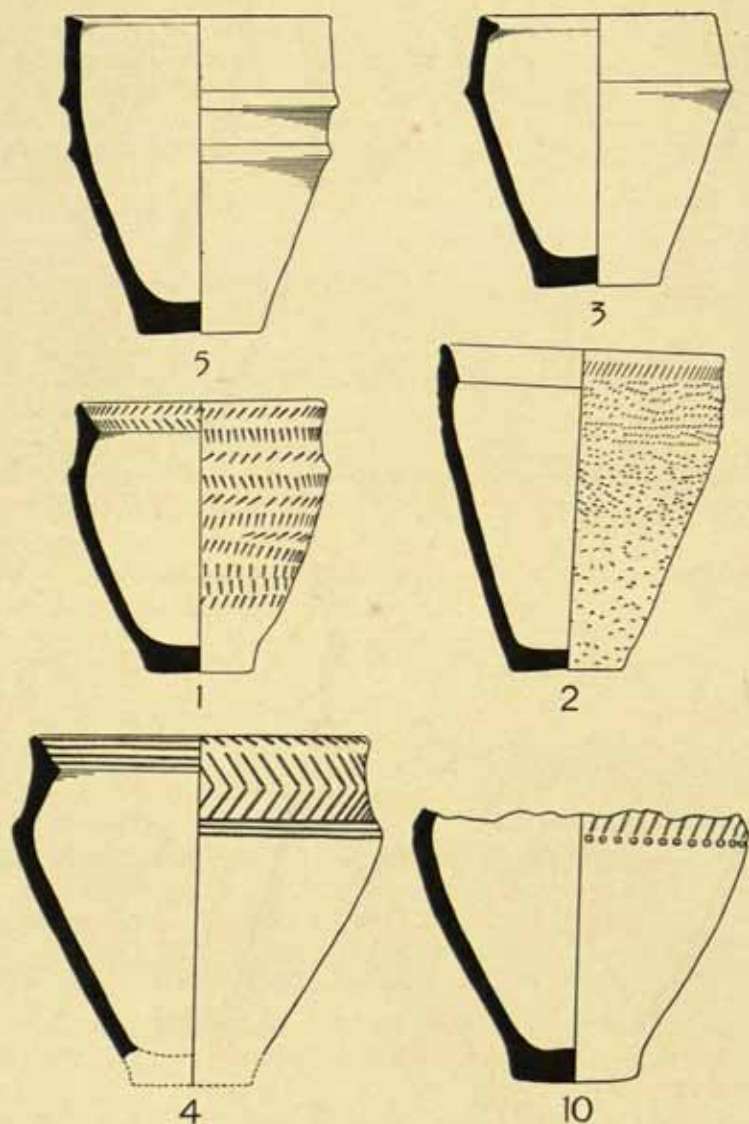


Fig. 8. Nos. 5 and 3, Cinerary Urns of Overhanging Rim Type; Nos. 1, 2, 4, 10, Cinerary Urns of enlarged Food Vessel Type. (L.)

formulated with care, since urns Nos. 1 and 2 must have been buried simultaneously, seeing that they were found within a double pit. Yet No. 2 (fig. 8) is wholly unlike No. 1. In fact, No. 2 is unique, having no

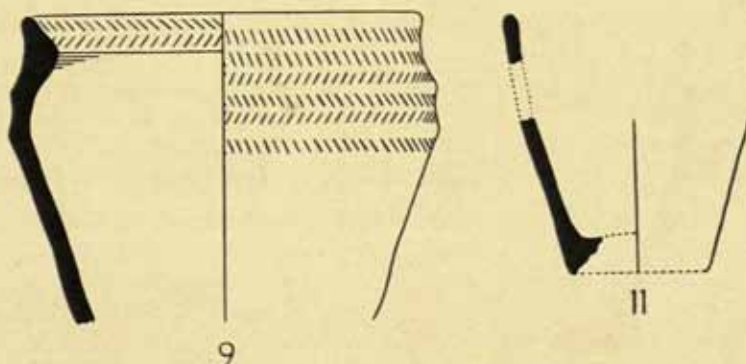


Fig. 9. No. 9, Cinerary Urn of enlarged Food Vessel Type;
No. 11, early Iron Age Vessel. (1).

parallels. It is $10\frac{1}{2}$ inches high, and the diameter at the mouth is $8\frac{3}{8}$ inches. It is decorated from rim to base; below the rim is a line of diagonal incisions, and from these to the base the decoration consists of stabs done with a right-angled point. These were at first executed more or less in rows, but soon the potter's patience gave out, and thereafter they became mere jabs at random. The shoulder of the urn is not very pronounced, and here the potter has drawn his (or her) index finger round the entire circumference, perhaps in representation of a rudimentary groove. About half an inch above this there is another, even less pronounced; and a third is to be found round the whole circumference just below the rim. There are, of course, Food Vessels bearing three grooves, and this may represent the complete degeneration of that form.

The fifth E.F.V. type urn, No. 10 (fig. 8), is unfortunately incomplete, that part above the shoulder being almost entirely missing. Little, therefore, can be said about it. But the decoration was probably much in accordance with No. 4, except that here, upon the shoulder, is decoration carried out with the broken leg-bone of a bird. This form of decoration is rather uncommon as applied to Cinerary Urns, and is, in all but one instance, peculiar to urns of the E.F.V. type. A point worth remarking upon is the rather globular shape of urn No. 10. This is unusual. Probably the urn was about 11 to 12 inches in height and about 10 inches in diameter at the mouth.

Since urns of the O.H.R. type are more or less common to most parts of this country, this discussion must be confined to the six specimens from the present cemetery. These form a fine series, showing the degeneration of rim and outline. The earliest specimen is urn No. 12

(fig. 7), which was found to be $16\frac{1}{4}$ inches high and $11\frac{1}{4}$ inches in diameter at the mouth. It is undecorated. It is a moderately early example of the type, with pronounced overhanging rim, and concave neck and prominent shoulder. In Nos. 6 and 7 (fig. 7) the overhanging rims are less pronounced, the necks have more or less straightened out, and the shoulders have lost their prominence. There is thus a gap of years between No. 12 and Nos. 6 and 7, but Nos. 6 and 7 themselves are presumed to be more or less contemporary, one with the other. In view of the slight differences of rim, neck, and shoulder, however, and of the fact that the pit for No. 7 was of less depth than the pit for No. 6, it is possible that a short interval may separate these two burials, No. 7 being, therefore, later than No. 6. Urn No. 6, which was $13\frac{1}{4}$ inches high and 10 inches in diameter at the mouth, is decorated between neck and rim with cord ornament arranged in the form of lozenges. No. 7, which was 12 inches high and 10 inches in diameter at the mouth, is undecorated. Since its base slightly protruded above the level of the secondary floor, that part is now missing.

Further changes have taken place in the degeneration of the form since the manufacture of No. 7, as is plainly evident from a study of urn No. 8 (fig. 7). This urn, which was $14\frac{5}{8}$ inches high and $10\frac{1}{4}$ inches in diameter at the mouth, and which was decorated only on the interior of the rim with two parallel lines of cord ornament, shows the complete straightening out of the neck, with consequent disappearance of the shoulder. But the former existence of the shoulder is indicated now by a cordon, which is purely symbolical in purpose.

So far the rim had undergone little change, but with urn No. 5 (fig. 8) we observe that the overhanging rim had likewise suddenly degenerated, its former presence being marked also with a cordon. With this degeneration of rim we note a decrease in size, No. 5 being 10 inches high and $8\frac{1}{4}$ inches in diameter at the mouth. But degeneration did not stop there: with the decrease in size, and in order to preserve the proportions of the vessel, the cordon representative of the shoulder was dropped. We observe this outcome in urn No. 3 (fig. 8), which is but $8\frac{1}{2}$ inches high and $7\frac{1}{2}$ inches in diameter at the mouth. Both Nos. 5 and 3 are undecorated. Urns Nos. 5 and 3 do not belong to the form known as the cordoned type of Cinerary Urn; in fact, No. 3 is a degeneration peculiar to the North-East. A similar urn comes from the Haddo House Estates in the same county, whilst a later and much smaller example was found at Foulford, Cullen, Banffshire,¹ along with another urn very much like No. 5. Perhaps the type represented by

¹ *Proc. Soc. Ant. Scot.*, vol. xxxi. p. 216.

No. 3, seeing that it is purely local, was influenced by the E.F.V. type of Cinerary Urn.

The final urn, No. 11, is of early Iron Age date. Unfortunately it is incomplete, and was badly crushed when found, a state due to its having protruded above the level of the secondary floor. The vessel must have been about $7\frac{1}{2}$ inches diameter at the mouth and about $8\frac{1}{2}$ inches in height. In every way it corresponds to Type I, Period I, of the local Iron Age,¹ the fragment of rim found with it being of the formless type typical of that period. In the comparatively small base and wide mouth may be seen the influence of the Cinerary Urn form, a form which was still being closely followed in the early Iron Age, as indeed was made manifest last year.² But the present vessel is earlier than any discovered last year.

In regard to order of burial, that of the O.H.R. type would be Nos. 12, 6, 7, 8, 5, and 3. Of the E.F.V. type the order was probably Nos. 1 (with 2), 4, 10, and 9. The final burial was No. 11. It is thus obvious that each urn was buried at random, although there seems to have been a preference for the north side of the cemetery.

GENERAL DISCUSSION.

The unique character of the cemetery has already been discussed. It is the first of its kind; and thanks to the fact that it is situated on land now under the guardianship of the Commissioners of H.M. Works, it was possible for the Ancient Monuments Department to authorise the systematic investigation of the site. The present author wishes to acknowledge his indebtedness to the Department, and particularly to Mr J. S. Richardson, Inspector of Ancient Monuments, for the opportunity afforded him of excavating the site on behalf of the Department.

Most cemeteries hitherto discovered have been chance finds, so that there has been little to show apart from the Cinerary Urns which they contained. We are thus deprived of the opportunity for comparison, so that it only remains here to discuss the peculiarities of the present cemetery at Loanhead of Daviot.

In the cemeteries at Westwood, Newport, Fife,³ Gilchorn, Angus,⁴ and Maxwelltown, Dumfries,⁵ the urns are said to have been arranged in circles and semi-circles, so that the circular character of the Loanhead cemetery may not be exactly unique. The circular arrangement may simply have been suggested by collective burials in round cairns, where secondary

¹ *Proc. Soc. Ant. Scot.*, vol. lxxix. p. 197.

² *Ibid.*, vol. vi. p. 388.

³ Childe, *Prehistory of Scotland*, p. 130.

⁴ *Ibid.*, remarks on Type I, No. 9 (fig. 10, No. 2).

⁵ *Ibid.*, vol. xxv. p. 447.

interments surrounded, at odd points, the primary central burial. In the present cemetery the same haphazard arrangement of burials exists around a central primary interment. This perhaps emphasises a little the continuity of tradition which is clearly shown by the pottery. But if a circular cemetery is hardly unique, there was hitherto no evidence to show that any one had been surrounded by a dyke. The enclosed cemetery at Loanhead of Daviot is therefore unique in that respect.

For analogies to the double entrance we have to go no farther than the Kintore district, where small stone circles, at Broomend of Crichtie and at Foularton, were surrounded by ditches, but the interior was approachable by means of two causeways.¹ Similar causeways, which seem to be usually on the north and south sides, give access to certain of our cairns.² In view of the fact that some of such enclosed areas seem to have been consecrated ground, the purpose of the ditch was merely to form an obstruction to prevent the layman from setting foot on hallowed ground. There seems to be no reason for doubting that the dyke at Loanhead of Daviot served the same purpose as the above ditches, especially as it was itself built within a shallow ditch; although the ditch may have been occasioned by purely practical reasons, since its presence was necessary for the method of building the dyke here employed. The lowest course of stones had been laid against the sides of the ditch: inside these there were placed two lines of other stones, all being on edge, and between these again were packing stones. In this way the dyke was built, course after course, but with the inevitable result that it narrowed towards the top. But the method employed made for solidity, and there was less chance of the stones being displaced by natural or other means, than would have been the case had they all been laid horizontally.

There is considerable discrepancy in the width and character of the two entrances. That on the south-west side was slightly out-turned. There can be little doubt that the construction which originally stood to the left of this entrance was in some manner connected with it; but its purpose is obscure. Apparently it was of some height, to judge from the manner in which the stones fell southwards.

It is probable that in the case of most cemeteries the ground would have been consecrated before the initial interment took place. At Loanhead of Daviot that ceremony of consecration or purification of the site had been accompanied by the lighting of six fires. The remains of those fires were found undisturbed, beneath the dyke, and all were

¹ *Proc. Soc. Ant. Scot.*, vol. liv. p. 154.

² *Ibid.*, vol. lxxv. p. 278.

within the ditch; so that the site must have been consecrated immediately after the making of the ditch, and following the clearance of all superficial soil from the area thus enclosed. The fact that the newly cleared site was surrounded by fire implies that the whole of that enclosed area was regarded as having been purified by fire.¹

The depth of ash and charcoal, the amount of intermixed cremated human bone, and the large area which these remains of the pyre covered, testify to the number of cremations which had taken place in the middle of the cemetery. Since the ash was deepest in the exact centre of the cemetery, the first cremations probably took place there; in which case it is doubtful whether burial No. 12 was actually buried beneath the remains of the pyre, as would be implied by its now being within the area covered by the later conflagrations. In the case of burials M, N, and No. 11 there can be no doubt that they were deliberately buried within the limits of the pyre as it then existed; for whereas the small amount of earth which had penetrated among the stones filling Pit No. 12 was entirely free of ash and charcoal, the fillings of all the above three pits consisted for the most part of ash and minute pieces of charcoal. This might serve to suggest that burials M and N (both being those of children) were comparatively late; and in regard to No. 11 there can be no doubt at all that it is the last of the urn burials, since this particular urn was the only one of early Iron Age type found within the cemetery. The proximity of burial No. 11 to burial No. 12 suggests that all trace of No. 12 had been lost at this time. There was a considerable period of time separating the two burials, for whereas the former belongs to the earliest Iron Age, No. 12 was the first of the overhanging rim type of Cinerary Urns to be interred.

There can be no doubt that E is the initial burial. Here it is obvious that the pit was specially shaped to accommodate the human form. The body had been laid upon its side, facing south, and with the arms extended in that direction. The hands must have clasped the sandstone pendant (fig. 10, A). Thereafter the pyre must have been erected over the body, and the body was cremated as it lay. The cremated bones lay in order within the pit, those easily recognisable being the flat bones of skull at the east end, a portion of pelvis near the middle, and a few pieces of leg bones towards the west end. One cannot imagine that the undertakers would trouble themselves to set out the many fragments of cremated bones in their correct order. Apparently also,

¹ It will be recalled that the interior of the stone circle at Cullerlie (*Proceedings*, vol. lxix, p. 217) had been consecrated by fire after the erection of the monoliths, but prior to the laying down of the enclosed cairns. But at Cullerlie the whole floor had been subjected to heat, whereas at Loanhead, as we have seen, the fire merely surrounded the site.

just as the pyre died down and burnt itself out, so was it left; for, apart from the bones, the pit was full of ash and charcoal alone, the

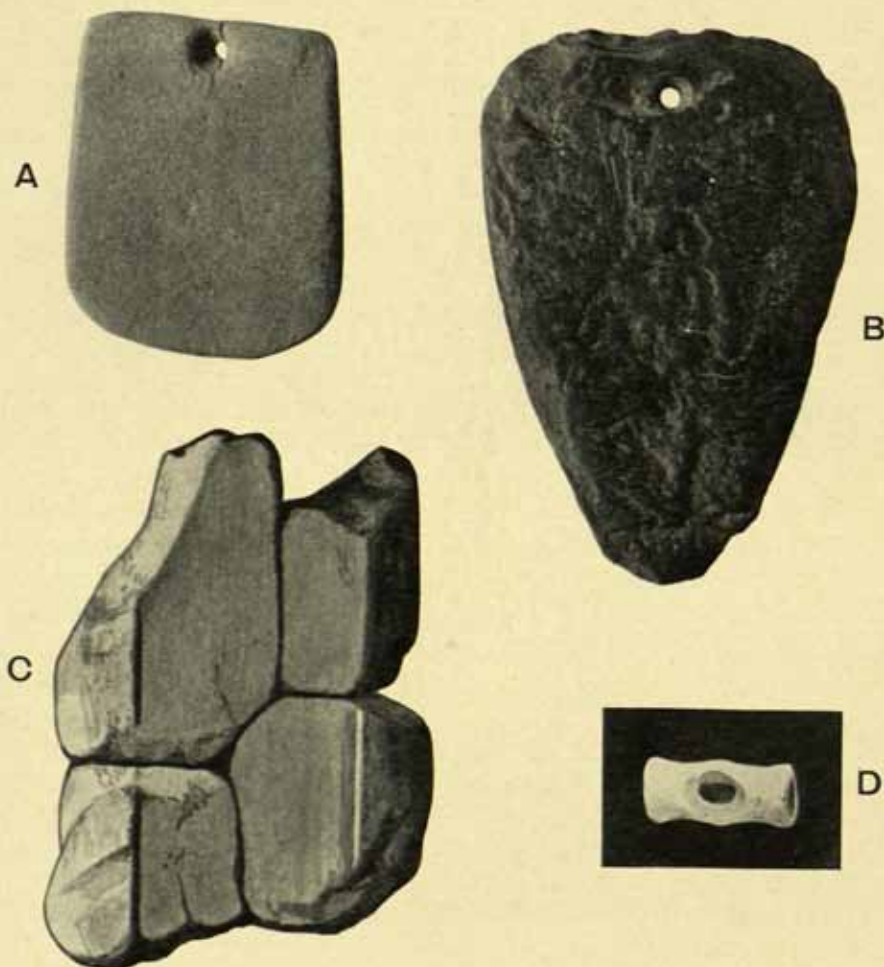


Fig. 10. (A) Sandstone Pendant, found in burial E; (B) Slate Pendant; (C) Portion of Sword-mould; (D) Bone Toggle, found in urn No. 12. (†.)

latter occurring in large pieces. It was thus the first cremation which had taken place on the site, and the whole ceremony may have been purely a ceremonial affair.¹

Pendants accompanying burials are rare. One, of slate and orna-

¹ It is curious that all subsequent cremations took place upon this burial.

mented, was found beneath a degenerate overhanging rim type of Cinerary Urn (which stood everted) at Seggiecrook, Kennethmont,¹ in the same county. Another, also of slate and heart-shaped (fig. 10, B), was found in a small cairn, along with sherds of early Iron Age ware, on the north side of the stone circle at Loanhead of Daviot, during clearing operations undertaken by H.M. Office of Works. Others have been picked up at random. One, of steatite and possessing two serrated edges, is in the possession of Mr John Reid, of Inverurie. In every case they seem to have been fashioned from material which cannot be acquired locally.

The grave D is of considerable interest. Obviously it had never been intended for an interment, and the fact that the majority of the stones contained within it had been scooped up on to the south-west side seems to indicate that they had thus been swept aside to allow of something within to be removed. No doubt this grave was intended to contain the bodies ere they were cremated, pending the necessary arrangements being made for the actual cremation ceremony. The body would presumably be covered over with earth and stones until it was required.²

There seems to have been no predetermined order of burial: the interments were apparently placed as fancy dictated. Thus we discovered a jumble of interments in which enlarged Food Vessel type and overhanging rim type Cinerary Urns were closely juxtaposed, and mostly on the north side of the cemetery. Elsewhere there were few burials. But in regard to the burials themselves, there was a noticeable dissimilarity between those contained within urns of the enlarged Food Vessel type and those of the overhanging rim type. In the case of the latter, all were accompanied by ash gathered from the pyre following the cremation of the corpse; and this ash was either interred with the urn, or, more often, in separate shallow ash-pits situated alongside the urn-pits. The ash-pits accompanied those pits which contained the earliest specimens of this type of urn (No. 12, and the next three in order of descent, Nos. 6, 7, and 8); whereas, in the case of the degenerate specimens, Nos. 5 and 3, the ash had been thrown into the urn-pits with them. Of enlarged Food Vessel type urns, three were unaccompanied by ash or charcoal, the urn-pits having been filled only with clean yellow soil. The two exceptions are No. 10, which had an accompanying ash-pit, L, and No. 9, which had

¹ *Proc. Soc. Ant. Scot.*, vol. xxxix. p. 186.

² *Antiquity*, vol. viii. p. 59 *et seq.* The Scandinavians kept the body in a grave for ten days, until they had finished cutting out and sewing garments for the corpse. When in the grave, the corpse was covered, first with wood and then with earth; and when it was removed we are told that it had in no way altered, except for colour.

been buried with ash and charcoal. On the analogy of the degenerate overhanging rim urns having been buried with ash from the pyre, urn No. 9 was perhaps the last of the enlarged Food Vessel type to have been interred. No. 10 would then be earlier. No. 10 was also the sole everted urn. There is thus a sharp contrast in custom apparent here: on the one hand overhanging rim type urns interred with the ash from the pyre, and on the other hand three enlarged Food Vessel type urns unaccompanied by ash; and one wonders if both forms of interment took place more or less simultaneously, or whether the cemetery was utilised at different times by two different communities. The urns themselves give us little information with regard to the actual state of affairs, since both types are represented by both early and late forms: but, of the two, the enlarged Food Vessel type is local (as demonstrated on p. 292), and it seems that the overhanging rim type of urn is representative of an intrusive element in the district. And the makers of the enlarged Food Vessel type of urn in later times seem to have suffered a conversion, for pit No. 10 was accompanied by an ash-pit, and pit No. 9 contained ash and charcoal.

The only relic associated with an urn was the toggle (fig. 10, D) found in urn No. 12 amongst the cremated remains of one adult and two children. The urn was the earliest of the overhanging rim type found within the cemetery. Toggles are rare. One was found in the small cemetery at Seggiecrook, Kennethmont,¹ lately referred to. It is very like the Loanhead toggle and was found in an overhanging rim type urn. Another toggle was found in grave 8 at Dalmore, Alness, Ross,² in an Encrusted Urn (debased overhanging rim type); whilst a third, slightly differing from the above specimens, was found with an overhanging rim type urn at Over Migvie, Kirriemuir, Angus.³ This gives a total of four toggles, and all were found in the north-eastern corner of Scotland,⁴ in each case in association with Cinerary Urns of the overhanging rim type. These toggles are said to have Danish parallels.⁵

Of the remaining relics the quartz hammer-stone and the three pot-covers from the secondary floor demand no further comment; but the discovery of the portion of sword-mould within the cemetery is of some significance. The portion, which was in four fragments, consists of the matrix and part of the outer envelope or casing of clay. The type appears to be very similar to the moulds found by Dr Alexander Curle at Jarlshof.⁶ The peculiar significance of the discovery of this fraction of

¹ *Proc. Soc. Ant. Scot.*, vol. xlii. p. 217.

² *Ibid.*, vol. xlii. p. 257.

³ *Ibid.*, vol. lxiv. p. 31.

⁴ The cemetery at Dalmore may be said to be on the outskirts of the north-eastern area.

⁵ Childe, *Prehistory of Scotland*, p. 136.

⁶ *Proc. Soc. Ant. Scot.*, vols. lxvii., lxviii.

sword-mould at Loanhead of Daviot is in its close association with the cemetery; for it is curious, as Professor Childe has recently remarked,¹ that implements or ornaments of late Bronze Age type have never been found in association with Cinerary Urns in Scotland. Although the present sword-mould was not found in association with a burial, it at least establishes the fact that, even if the ornaments or weapons of the departed were not actually interred with him, he undoubtedly possessed such things in life. Moreover, the discovery of the mould also indicates manufacture of swords on or near the site, which means that the population was not dependent upon itinerant smiths for its weapons.²

In regard to the burials themselves, Professor Alexander Low, who has most kindly examined the many pounds of cremated bone recovered, has been able to identify thirty-one individuals, eight of whom were children under the age of six years. Of these, none was under the age of three years. This large number may merely be due to a high rate of mortality among the young; but their ages are of interest, since it will be remembered that last year fifty pieces of the skull bones of children, of perhaps two to four years of age, were recovered from the Centre Pit of the Stone Circle.³

I wish to record my grateful thanks to Professor Alexander Low, Aberdeen University, for kindly reporting upon the numerous cremated remains found within the cemetery, and to Mr M. Y. Orr, of the Royal Botanic Garden, Edinburgh, for his report upon the charcoal. I also wish to record my appreciation of the services of D. Catleugh, who was for two years the leading labourer. The great patience which he displayed, and the care with which he carried out my instructions, contributed greatly to the success of both seasons' excavations.

¹ Childe, *loc cit.*, p. 166.

² An interesting question raised here is—Which of the two communities (the makers of the enlarged Food Vessel type urns, and the makers of the overhanging rim type urns) was responsible for the manufacture of swords? Probably the latter, who may further have been responsible for the introduction of the weapon into the district.

³ *Proc. Soc. Ant. Scot.*, vol. lxxix. p. 214.

APPENDIX I.

INVENTORY OF SKELETAL REMAINS FROM BRONZE AGE
CEMETERY AT LOANHEAD OF DAVIOT, ABERDEENSHIRE,
EXCAVATED BY HOWARD E. KILBRIDE-JONES, 1935.—BY
PROFESSOR ALEXANDER LOW, M.A., M.D.

Each parcel contains cremated bones. There are numerous pieces of long bones varying from $\frac{1}{2}$ an inch to 3 inches in length, but in the process of cremation they have become much warped and splintered so that it is not possible to identify them. No animal bones have been identified. In every case it has been possible to identify some parts of the human skeleton. Where duplicate parts have been identified we have evidence of two individuals. It is of interest to note that parts of certain bones recur in lot after lot, especially flat bones of skull and ear bones, possibly due to the protective action of the great amount of water present in the brain.

Pit No. 1.

Identified.—About 30 pieces of flat skull bones—very thin, with practically no diploë; right and left petrous bone and unerupted upper first molar teeth; fragments of limb bones.

Evidence of 1 *child* 3 to 4 years of age.

Weight of cremated bone, 3 ozs.

Pit No. 2.

Identified.—Twenty-eight fragments of skull—mostly parietal and frontal, right and left petrous bone, fragments of upper and lower jaw and a lower incisor tooth; fragmentary vertebræ and ribs; pieces of radius and ulna; 5 pieces pelvis; fragmentary left patella and a metatarsal of great toe. Other fragments.

Evidence of 1 *adult*.

Weight of cremated bones, 2 lb. 9 oz.

Pit No. 3.

Identified.—Forty-five fragments of skull including a piece of orbital margin and of lower jaw; 6 fragmentary vertebræ and shaft of ribs; 3 phalanges of fingers; fragments of femora and right os calcis.

Evidence of 1 *adult*.

Weight of cremated bones, 1 lb. 3 oz.

Pit No. 4.

Identified.—About 35 pieces of skull bones—parietal, occipital, frontal, right petrous bone and mastoid, right and left halves of upper and lower jaws, fragmentary; pieces of 12 vertebræ and ribs; fragments of left scapula, upper and lower ends of humerus, radius and ulna; 2 carpal and 3 metacarpal bones; 7 fragments of pelvis; head and fragments of condyle of a femur; piece of shaft of tibia and articular surface of a left astragalus.

Evidence of 1 *adult*.

Weight of cremated bones, 2 lb. 7 oz.

Pit A. (First Accumulation of Bone.)

Large collection of thoroughly cremated and very fragmented bone with numerous pieces of charcoal. Impossible to identify the bulk of the fragments—no animal bones can be identified.

Identified.—Forty fragments of skull bones and 12 teeth of more than one individual; 18 imperfect vertebræ; sternal ends of 2 right clavicles; 4 pieces of humeri; 12 fragments of adult pelvis—at least three adults; pieces of 3 femora; several imperfect phalanges.

The fragments represent the remains of *at least 3 adults*.

Weight of cremated bone, 7 lb.

Pit A. (Second Accumulation of Bone.)

Many splintered, cracked, and distorted pieces of bone.

Identified.—Some 30 pieces of adult skull—evidence of *at least 2 individuals*; about 12 pieces of the skull of a *child about 6 years of age*; 6 somewhat imperfect teeth; fragments of vertebræ and ribs; pieces of arm and forearm and finger bones; 3 pieces of femora; head of a tibia and fragments of several bones of foot.

Skeletons of *at least 2 adults and 1 child*.

Weight of cremated bone, 4 lb. 5 oz.

Pit A. (Single Burial at Base.)

Identified.—Sixteen pieces skull including fragments of parietal, occipital, upper and lower jaw; fragments of vertebræ and ribs; pieces of a humerus; last phalanx of a finger; fragment of a pelvis; pieces of a femur and a tibia.

Evidence of 1 *adult*.

Weight of cremated bone, 1 lb.

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Pit B.

Identified.—Twenty-four pieces of skull bones—parietal, occipital, frontal, piece of mandible; piece shaft radius; 2 pieces pelvis; very fragmentary long bones.

Evidence of 1 *adult*.

Weight of cremated bone, 1 lb. 4 oz.

Pit No. 5.

Identified.—About 50 fragments of skull bones—parietal, occipital, and frontal; there are *two pairs* of petrous bones and fragments of upper and lower jaws; the other pieces of bone are much fragmented, but ribs and vertebrae are present; pieces of shafts of ulna and radius and 3 middle phalanges of fingers; pieces of pelvis, 1 tuberosity showing epiphysis un-united; pieces of upper and lower end of a femur and of os calcis and astragalus.

Evidence of 2 *individuals*: 1 *adult* and 1—20 to 25 years of age.

Weight of cremated bones, 2 lb. 6 oz.

Pit C.

Identified.—Ten fragments of skull bones, mostly parietal; fragments of 5 vertebrae and 3 ribs; 3 fragments of humerus; some fragments of pelvis; pieces of 2 femora and a tibia; left astragalus; fragments of long bones.

Evidence of 1 *adult*.

Weight of cremated bone, 1 lb.

Pit E.

Many fragments of bone with adherent charcoal dust.

Identified.—Forty pieces of flat bones of skull—parietal, occipital, frontal; also pieces of right and left petrous bone containing internal ear—sutures have been quite open; pieces of ribs; lower end of humerus and a wrist bone; 4 pieces of a rather robust pelvis (? male); small pieces of lower end of femur, upper end of tibia, and a patella.

No duplicate parts identified. Probably the *skeleton of an adult male under 40 years*.

Weight of cremated bones, 1 lb. 5 oz.

Pit No. 6.

Identified.—Twenty-six pieces of skull bones—parietal, occipital, frontal, right and left petrous bone, pieces of alveolar margins of upper

and lower jaws; fragments of 6 vertebræ and 6 ribs; pieces of shaft of radius and ulna; piece of pelvis; upper third of femur; fragmentary left patella; pieces of tibia and astragalus; other bones very fragmentary.

Evidence of 1 *adult*.

Weight of cremated bone, 2 lb. 14 oz.

Pit No. 7.

Identified.—Eighteen pieces of skull bones including a right and a left petrous bone, pieces of upper and lower jaw, and an upper molar tooth; 10 fragments of vertebræ; fragments of shafts of ribs; upper and lower articular surface of a humerus; piece shaft ulna; 3 phalanges; lower ends of 2 femora and a fragmentary os calcis. Many fragments of long bones.

Evidence of 1 *adult*.

Weight of cremated bones, 2 lb. 7 oz.

Pit No. 8.

Identified.—About 30 pieces of skull bones—parietal, occipital, frontal, right and left petrous bones, left mastoid process, and fragments of lower jaw; 5 fragmentary vertebræ and 8 ribs; piece of right clavicle; pieces of forearm bones and a fifth metacarpal; 2 pieces of femur and articular surface of astragalus. Many fragments of long bones.

Evidence of 1 *adult*.

Weight of cremated bones, 2 lb. 9 oz.

Pit H.

Identified.—Forty pieces of skull bones—obviously 2 *children*, an older and a younger; right and left petrous bones of the older child; pieces of upper and lower jaw with milk teeth; piece showing condyle of occipital not joined up; 2 odontoid processes with epiphyses for tip not joined; many pieces of small vertebræ and ribs, arches of some not joined with bodies; piece lower end humerus, epiphysis not united; 2 or 3 pieces of pelvis; pieces lower end of femur; head of tibia; right and left astragalus; fragmentary os calcis.

Evidence of 2 *children*—1 *probably about 3 years of age and the other about 5 years of age*.

Weight of cremated bones, 13 oz.

Pit J.

Identified.—Sixteen pieces of skull, including piece of upper jaw with tooth sockets; 9 fragmentary vertebræ; 5 pieces of ribs; pieces of

humerus; heads of 2 femora; 7 pieces of pelvis; many fragmented bones.

Evidence of 1 *young adult* 20 to 25 years.

Weight of cremated bone, 2 lb. 3 oz.

Pit K.

Many fragments of long bones.

Identified.—Thirty pieces of bones of skull—left upper orbital margin, parietal, occipital, alveolar margin of left upper jaw with wisdom tooth in position, and alveolar margin of left half of lower jaw with wisdom tooth in position; fragments of ribs and 6 vertebræ; fragments heads of right and left humeri; piece of right ulna and 5 small wrist bones; 6 fragments of finger bones. No duplicate parts identified. *Skeleton of an adult.*

Weight of cremated bones, 2 lb. 3 oz.

Pit No. 9.

Mostly fragments of long bones.

Identified.—Five pieces of parietal; small piece of temporal; lower molar and 2 premolar teeth; 2 imperfect phalanges of finger.

Evidence of 1 *adult*.

Weight of cremated bone, 5 oz.

Pit No. 10.

Identified.—Thirty-five pieces of skull bones—parietal, occipital, right orbital margin, right and left petrous bones; fragments of 6 vertebræ; 3 pieces of radius; head of right femur; fragments of lower end of femora; right and left patellæ; lower end of a tibia; heads of right and left first metatarsal. Many fragments of long bones.

Evidence of 1 *adult*.

Weight of cremated bone, 1 lb. 14 oz.

Pit No. 11.

Identified.—Small pieces of parietal bone, petrous bone, mandible; middle phalanx of a finger; piece of pelvis.

Evidence of 1 *adult*.

Weight of cremated bone, 9 oz.

Pit No. 12.

Many fragmentary pieces of bone—1 adult and 2 children.

Adult Identified.—Some 30 pieces of bones of skull—frontal, parietal, and occipital, sphenoid, margin of left orbit, left petrous, alveolar margin

of upper jaw, 2 pieces of lower jaw; fragments of vertebræ including axis and ribs; of left clavicle; of heads of right and left humeri, radius, ulna, metacarpal bones, and phalanges of hand; fragments of pelvis, right and left femora, fibulæ, and bones of great toe.

Two Children Identified.—Some 25 pieces of thin flat bones of skull; 2 pairs of right and left petrous bones containing internal ear; 5 temporary teeth; 10 fragments of vertebræ including a second cervical vertebra with the odontoid process not fused; right clavicle with epiphysis not fused; small scapula, humerus, and ulna; 2 pairs of tuberosities of young pelvis; upper ends of a pair of femora, epiphyses of head not joined up; fragments of lower end of femur; right patella; upper epiphyses of a pair of tibiæ; pair of astragali showing well-marked squatting facets, and a second pair of imperfect astragali.

Weight of cremated bones, 5 lb. 5 oz.

Pit M.

Many delicate fragments of bone.

Identified.—Thirty pieces of bones of skull—thin parietal, occipital, and frontal, fragments of right and left petrous bones, right and left condyles of lower jaw of child; some fragments of vertebræ and ribs; fragments of lower end of humerus; 3 pieces of a young pelvis; piece of head of a femur.

Skeleton of child perhaps 5 to 6 years of age.

Weight of cremated bones, 11 oz.

Pit N.

Identified.—Some 40 pieces of thin flat bones of skull; angle of a mandible; right and left petrous bone; 3 milk teeth; very small fragments of long bones.

Evidence of a child 3 to 4 years of age.

Weight of cremated bone, 3 oz.

Pyre.

Identified.—Twenty pieces of flat skull bones; fragments of 2 vertebræ; middle phalanx of a finger; fragments of limb bones.

Evidence of 1 adult.

Weight of cremated bone, 8 oz.

APPENDIX II.

ROYAL BOTANIC GARDEN,
EDINBURGH, 4.

I have now completed my examination of the charcoal material, and enclose the results herewith. In each case I have expressed the result in percentages. You will notice that I refer to *Willow-Poplar*. I have linked these two woods together, because in charcoal it is impossible to distinguish between them, the chief distinction being the nature of the medullary rays as seen in radial section, and this can only be seen in specially prepared microscopic preparations. The presumption is, however, that in most, if not all, cases the wood is that of Willow, although one cannot be certain.

PYRE.—Willow-Poplar 80 per cent.; Oak 15 per cent.; Birch 4 per cent.; Hazel 1 per cent.

FIREPLACE No. 1.—Willow-Poplar 73 per cent.; Hazel 27 per cent.

„ No. 2.—Oak 78 per cent.; Willow-Poplar 22 per cent.

„ No. 3.—Oak 50 per cent.; Hazel 38 per cent.; Willow-Poplar 6 per cent.; Birch 6 per cent.

FIREPLACE No. 4.—Willow-Poplar 58 per cent.; Oak 30 per cent.; Hazel 12 per cent.

FIREPLACE No. 5.—All Oak.

BURIAL H.—Willow-Poplar, with one or two fragments of Oak.

„ J.—Hazel 48 per cent.; Willow-Poplar 36 per cent.; Oak 11 per cent.; Hawthorn 5 per cent.

BURIAL K.—All Oak.

„ M.—Willow-Poplar 50 per cent.; Oak 48 per cent.; Birch 2 per cent.

BURIAL No. 9.—Willow-Poplar 89 per cent.; Oak 8 per cent.; Hazel 3 per cent.

M. Y. ORR.

MONDAY, 9th March 1936.

SIR FRANCIS J. GRANT, K.C.V.O., Vice-President,
in the Chair.

A Ballot having been taken, the following were elected Fellows:—

Rev. JOHN A. CAMERON, M.A., B.D., Hon. C.F., The Manse, Legerwood, Earlston, Berwickshire.

ALEXANDER NORMAN MCLEOD, 1 Blackford Road, Edinburgh. 10.

Rev. EDWIN S. TOWILL, M.A., B.D., Chalmers Manse, 27 Windsor Street, Dundee.

The Accounts of the Society for the year 1934–1935, which had been circulated amongst the Fellows, were unanimously approved.

The following Donations to the Museum were intimated, and thanks voted to the Donors:—

(1) By ALEXANDER O. CURLE, C.V.O., LL.D., F.S.A.Scot.

Implements of quartz and stone, block of iron slag and fragments of pottery from Wiltrow, Dunrossness, Shetland. (See previous communication by Dr A. O. Curle.)

(2) By ANGUS GRAHAM, F.S.A.Scot.

Stone Axe, measuring $9\frac{1}{4}$ inches by $3\frac{1}{4}$ inches by $1\frac{3}{16}$ inch, found at Craigs, Auchterellon, Aberdeenshire, while excavating for the foundations of a house, 7th April 1861.

Stone Axe, measuring $7\frac{3}{4}$ inches by $2\frac{7}{8}$ inches by $1\frac{11}{16}$ inch, found at Waterton, Ellon, 5th December 1866.

Polished Stone Disc, measuring 3 inches in diameter and $\frac{7}{16}$ inch in thickness, found in 1869, under 5 feet of moss, embedded in 9 inches of clay, on the estate of Ellon.

Seven Scrapers, varying from $\frac{11}{16}$ inch by $\frac{13}{16}$ inch to $1\frac{3}{16}$ inch by $1\frac{1}{4}$ inch; three end Scrapers, varying from $1\frac{3}{16}$ inch by $\frac{11}{16}$ inch to $1\frac{1}{2}$ inch by $\frac{3}{4}$ inch; five Knives, varying from $1\frac{5}{16}$ inch by $\frac{5}{8}$ inch to $2\frac{1}{8}$ inches by 1 inch; one core Scraper, $1\frac{5}{8}$ inch by $1\frac{9}{16}$ inch by $1\frac{3}{4}$ inch; thirty-nine Cores, and fifteen Flakes, mostly small. All were of red, yellow, and lighter coloured flint, and were found on the estate of Ellon, the Cores

coming from two sites, one on each side of the river Ythan, a short distance east of Waterton Mill. From the collection of the late A. J. L. Gordon of Ellon.

Pair of smiddy-made Peat Tongs, measuring 20 inches in length, from Skipness, Argyll.

(3) By R. N. de PINTO, F.S.A.Scot.

Medal of white metal, of Leith War Savings Committee.

(4) By E. G. HAY, 1 Warrender Park Crescent, Edinburgh.

Back of a smiddy-made Toaster of Iron, showing a thistle in the centre and flat spiral bands on each side, from Tranent, East Lothian.

(5) By HUGH W. MILLER, West Fortune, Drem, East Lothian.

Horseshoe-shaped object of Iron, measuring $5\frac{9}{16}$ inches long, and $5\frac{5}{8}$ inches broad, without nail holes, and corrugated on the outer face, found while digging a drain at West Fortune, East Lothian.

(6) By JAMES S. RICHARDSON, F.S.A.Scot.

Aumrie Door of Oak, with two carved panels, measuring 3 feet $6\frac{3}{8}$ inches in height and $18\frac{1}{2}$ inches in breadth. The upper panel contains the Ruthven arms, flanked by the initials R.R. The lower panel bears the bust of a man, set above a lyre-like arrangement of scrolls forming a dragonesque design. The door has been slightly restored and over-cleaned, but the charge on the shield has been tinctured argent and gules, traces of these colours being still discernible; later, all was covered with green paint.

(7) By ANGUS MACLEOD, Schoolhouse, Carloway, Lewis.

Wooden utensil shaped like a baler for a boat, square across one end and contracting slightly to the other, which is rounded and provided with a projecting knob for a handle. The interior has been rudely dug out. The object measures 14 inches in length, $6\frac{1}{2}$ inches across the broad end, 4 inches at the narrow end, and 3 inches in greatest external depth. Two holes have been burnt through the broad end with a wire so that the cavity cannot now contain a liquid. There are other three holes burnt a short distance into the wood. As the inside of the dug-out cavity is burnt in places, it has been suggested that it may have been used for carrying a live peat from one fire to light another. Found about

5½ feet below the surface when digging peats near Creagan Nighean Dhomhnuill Mhic Iain, ¾ mile east by south of Carloway Bridge, Lewis.

(8) By Miss FLORENCE V. G. ROBERTSON, Edinburgh.

Silver Luckenbooth Brooch, of the crowned-heart variety, with the original looped pin, and a later hinged pin and catch hook added to it, measuring $2\frac{5}{16}$ inches in height, and showing the word VERTUE engraved on the back.

Flat Ring-brooch of silver, mounted with Scotch pebbles, measuring $1\frac{11}{16}$ inch in diameter.

The following Donations to the Library were intimated, and thanks voted to the Donors:—

(1) By WILLIAM ALEXANDER, F.S.A.Scot., the Author.

The Site of the Buttery College. Reprinted from *The Aberdeen University Review*, November 1935.

(2) By W. J. HEMP, F.S.A.Scot., F.S.A., the Author.

A Possible Pedigree of Long Barrows and Chambered Cairns. Reprinted from *The Proceedings of the Prehistoric Society for 1935*.

(3) By THE SECRETARY OF THE SOCIETY FOR THE PROMOTION OF ROMAN STUDIES.

Roman Britain in 1934.—I. Sites explored. Compiled by the Editor. II. Inscriptions. By R. G. Collingwood. Reprinted, London, 1935.

(4) By Sir GEORGE MACDONALD, K.C.B., President.

Archæology and Art Section. An Inventory of the Early Christian Stone Monuments of Wales, with a Bibliography of the Principal Notices. By V. E. Nash-Williams, M.A., F.S.A. Part I. Anglesey to Flintshire. From *The Bulletin of the Board of Celtic Studies*, vol. viii., part 1. November 1935.

(5) By L. MCINNES, Briarlea, Campbeltown, the Compiler.

Descriptive Catalogue of Kintyre Prehistoric Antiquities in Campbeltown Museum and of other Miscellaneous Prehistoric Antiquities of the Peninsula.

- (6) By W. DOUGLAS SIMPSON, M.A., D.Litt., F.S.A.Scot., the Author.

Rothiemay. Reprinted from *The Transactions of the Banffshire Field Club*. July 1935.

- (7) By R. N. de PINTO, F.S.A.Scot.

House of Lords' Judgment and Souvenir of Haddington. Glasgow, n.d.

- (8) By THE SCOTTISH ANTHROPOLOGICAL AND FOLKLORE SOCIETY.
Proceedings. Vol. ii. No. 1.

The following Communications were read:—

I.

THE ANCIENT INSCRIPTIONS OF KIRKMADRINE AND WHITHORN. BY PROFESSOR R. A. S. MACALISTER, LITT.D.

By the courtesy of Mr Richardson, Inspector of Ancient Monuments in H.M. Office of Works, I have recently had an opportunity of making a close examination of the Kirkmadrine and Whithorn inscriptions; and I noticed some facts which seem deserving of being placed on record. As the monuments themselves are well known and have been frequently illustrated, I need not expend any words in describing them. For illustrations I refer below to Allen's *Early Christian Monuments of Scotland*, and to the Wigtownshire volume of the Ancient Monuments Commissioners' *Inventory*.

KIRKMADRINE I. (Allen, p. 495; *Inventory*, p. 155).

Both Allen and the *Inventory*, in transcribing this inscription, omit the contraction-mark above SCI in line 2, and they both follow an erroneous reading for which Bishop Dowden is responsible (*Proc. Soc. Ant. Scot.*, vol. xxxii. p. 247). The true reading is

A ET ω

HIC IACENT
S(an)C(t)I ET PRAE-
CIPVI SACER-
DOTES ID EST
VIVENTIVS
ET MAVORIVS

The Bishop denied the existence of the T in EST, and made a third *sacerdos* with the not very probable name IDES. This, however, is not correct. The T is broken, and the fracture has carried off its vertical stroke: but the horizontal stroke remains, and is as plain as anything else in the inscription—it appears in the photograph illustrating the Bishop's paper (here reproduced), to say nothing of the two illustrations referred to above. ID EST must therefore be restored, and the priest Ides may be suffered to return to the void out of which he came.



Fig. 1. Kirkmadrine Inscriptions I. and II.

In the word **PRAECIPVI** I seemed to detect a bar crossing the stem of the **P**, but I could not make sure that this was not an illusion. I was also unable to trace with certainty the lower stroke of the **R**. It appeared to me that the engraver had become confused: that he either wrote **RP** for **PR**, or else that he wrote a stroked **P**, as an abbreviation for the first syllable of the word, and then forgot and began to write an **R** after it. I record these observations in order that they may be tested by other eyes.

KIRKMADRINE II. (Allen, p. 495; *Inventory*, p. 156.)

The reading

. . . . S ET
FLOREN-
TIVS

is certain. The letters before the **S** are flaked away: and the matrix of the flake is too deep to preserve anything of the missing letters. There seems to be the ghost of an **I** before the **S**: and a little projecting "head-land" of unbroken surface jutting into the matrix, just above the **L** of **FLOR-**, is crossed by a curved line which cannot be anything but the bottom of another **S**. Nothing more is left: but after consideration of the available space, I feel fairly certain that the lost word was **ISTIS**. The meaning would then be: With them—the Viventius and Mavorius of the first stone—is also Florentius.

In the photographs there appear to be letters painted on the stone, a little distance below the inscription. I see them very clearly in the *Inventory* volume and in the picture in Allen: not so clearly in the illustration accompanying Bishop Dowden's paper, which appears to have been made from a more coarsely meshed half-tone block. They appear to be **F**, a blurred letter, **R**, **O**, **S**, the **S** being $1\frac{3}{8}$ inch below the **VS** of **FLORENTIVS** in the *Inventory* volume block: there is at least one line of writing above, and another, ending with **N**, below.

The stone itself shows nothing to correspond: the human eye, as frequently, fails to catch what the camera reveals. It is possible that the letters are comparatively modern—a vulgar *graffito* painted upon the stone when it was guarded less carefully than it happily is at present. But it is also possible that they are ancient—an additional inscription, which might have told us something more of the ecclesiastics named, painted on the stone for the guidance of a possibly illiterate stonecutter, but for some reason never made permanent by his craft. The practice is indicated by the end of the long inscription carved upon the pillar

of Eliseg near Llangollen in North Wales, where we read a prayer for the man who *painted* the lettering, at the command of his king who set the monument up.

Remembering what wonderful results have been obtained from faded manuscripts by ultra-violet photography, it might be possible to recover this inscription by some such process. My friend Mr Barry Mason of Dublin, who is highly expert in the recent developments of photographic science, was greatly interested in this appearance of letters, and took much trouble, endeavouring to extract some further detail from the half-tone in the *Inventory* volume. These efforts came to nothing, however; a negative would be necessary, or, better still, a photograph of the original stone, taken with ultra-violet rays or by whatever other process would be appropriate. And success in this special case would open up a possible new field of research and of rich discovery. It has always appeared to me probable that the standing-stones and other megalithic monuments were originally decorated with painted ornament. If there were the least possibility of recovering any of that ornament it would be well worth while trying to do so.

KIRKMADRINE III. (*Proc. Soc. Ant. Scot.*, vol. li. (1917) p. 203.)

This stone, which simply bears the words **INITIVM ET FINIS** and has never had any further inscription, must be regarded as completing the epitaph on the other two stones—a unique case. The epitaph begins **A ET** on the first stone, and ends **INITIVM ET FINIS** on the third.

WHITHORN I. (Allen, p. 497; *Inventory*, p. 165.)

I had visited the Whithorn Museum on a previous occasion: but my time was limited, and I devoted it all to the difficult *Latinus* epitaph, taking this familiar *Petri* stone for granted. Later examination of a photograph which I purchased at the Museum suggested that the third letter of the inscription was a sickle-shaped **G**, not, as it had always been read, a **C**. On my second visit I had no such distraction, and could examine the stone at leisure: and I saw that there could be no doubt whatever that the letter is actually **G**.

In the earlier accounts of this stone, as we find them in Stuart, Hübner, and Anderson's *Scotland in Early Christian Times*, the reading of the inscription is given as **LOCI [Sane]TI PETRI APVSTOLI**, an **S** being supposed to be lost between the **I** and the **T**. The **T** is on the stem of the cross, the **I** to the right of it, the **LOCI** to the left. Anderson quotes

a parallel from Fordun,¹ which would be very interesting if it could be confirmed: but Fordun's description does not carry conviction, and need not at present detain us.

It is however impossible to fit any letters in between the **LOCI** and the **T**—not so much because there is no room for them, as because the stone is here unbroken and shows no trace of writing. Collingwood, in his valuable book on *Northumbrian Crosses*, as well as Allen, detach the **I** from the **LOCI**, turn it into an **S**, and read **LOC STI**. This is quite inadmissible. There is no space between the **C** and the **I**, and a long space between the **I** and the **T**: and the letter is certainly **I**, not **S**. Like all the other letters in the inscription, it has forked serifs above and below, and possibly these deceived the eyes of those who saw an **S** in the letter.

But in any case the word is not **LOCI** but **LOGI**. This must be for *logii*, genitive of *logium*, a late Latin word meaning a dwelling, or a lodging. The **O** has been slightly damaged by a flake, as well as the upright of the preceding **L**: this injury may be recent, for it is not shown in Anderson's illustration, here reproduced. The horizontal stroke of the **L** remains, though it has to be looked for, running beneath the **O**: its forked serif encloses the lower tip of the **G**.

The forked serifs are very conspicuous in all the letters, as well as in the **R** which turns the cross into a chi-rho device; with one exception. There are no serifs on the mark which has been read as a second **I** on the right-hand side of the cross-stem. For this reason, and having regard to the conspicuous slope which it shows, and in which it contrasts with the other **I**'s in the inscription, I doubt if this was a letter at all. I take it to be a false start, made when cutting the right-hand side of the cross-stem. The engraver suddenly realised that the symmetry—none too good, even as it is—would be destroyed, unless he made the stem a little narrower. The mark is visibly shallower than the rest of the cutting, showing that it was abandoned soon after it was begun. Of **PETRI APVSTOLI** there is nothing to be said, except that the engraver obviously



Fig. 2. Whithorn
Inscription I.

¹ Ed. Skene, cap. liv.

left out the R, and had to squeeze it in after his work was finished.

We are left then with **LOGI T PETRI APVSTOLI**, and have to explain the T. Fortunately the explanation is not far to seek. In the Vulgate of Ezekiel, ix. 4, we find the command *signa thou super frontes uirorum gementium*—"mark a T on the foreheads of those who lament" [the iniquities of Jerusalem]. T is therefore equivalent to a sign, a seal, or a mark. This T was in early Christian times fantastically compared to the cross, and, with the help of certain apocalyptic passages, the words of Ezekiel were taken as a kind of anticipatory type of baptism.¹ The whole inscription may then be taken as meaning "the seal of the lodging of Peter the Apostle." It is thus, as Collingwood, in the work quoted above, suggested, and even more emphatically than he could have supposed, with his inexact copy of the inscription, a record (possibly we should say *the* record) of the entry of Whithorn into the Roman obedience; of its baptism into the church of Peter the Apostle, as a consequence of the decision of the Synod of Whitby. It cannot therefore be earlier than the date of that fateful meeting, and does not possess the high antiquity that has been claimed for it.

This leads to important inferences as to the date of the use of the chi-rho symbol in these islands, and its relation to the wheel-cross. My own belief is that the wheel-cross is a representation of a cross-signed wafer—the Host in the Mass: but this is not the occasion for a discussion of any such theories. After a most careful examination of the cuttings on the stone from the technical point of view, I am quite positive that there is no justification for supposing the cross and the inscription to be other than contemporary, and the work of one artificer. Both cross and inscription are chisel-cut, unlike practically all the other carvings at Whithorn which are pocked. The R-appendage on the cross has, as we have seen, the same forked serifs as the letters of the inscription. No theories about the origin of the chi-rho symbol, based on an assumed pre-Whitby date for this monument, can be admitted.

I commend for the consideration of those who shall hereafter examine this monument a remarkable contrast between the two sides of the stone. The side to the right of the inscribed face—heraldically, the sinister side—is perfectly smooth and even. The left-hand side is violently battered, except for a smooth margin running round the edge. It gives a very strong impression that an earlier panel of ornamentation had been hammered away, perhaps to prepare the stone for receiving the seal of a new "baptism."

¹ See Charles, *Commentary on Revelation*, index s.v. seal.

WHITHORN II. (Allen, p. 497;
Inventory, p. 165.)

The interpretation of this inscription given in all the books is a mistranslation, copied from one to the other: a mistranslation which effectually conceals its unique interest. The lettering is not very clear, but so far as the mere characters are concerned they are accurately presented in the published transcripts:

1. TE DOMINVM
2. LAVDAMVS
3. LATINVS
4. ANNORVM
5. XXXV ET
6. FILIA SVA
7. ANNI V
8. IC SINVM
9. FECERVNT (*sic*)
10. NEPVS
11. BARROVA
12. DI

The engraver has written **SINVM**, though he clearly means **SIGNVM**: and he omitted the **N** of **FECERVNT**, and had to insert it afterwards, ligatured to the upright bar of the **T**, and on the wrong side of it. In the following discussion we shall silently emend these slips.

The translation of this inscription usually given is: "We praise Thee, Lord. Latinus aged 35 years and his daughter of 5. Here the descendants of Barrovadus made the monument (to them)."

To this reading there is a whole crop of objections. To dispose summarily of one hypercritical point, it is slipshod to translate *Latinus annorum*

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Fig. 3.
 Whithorn Inscription II.

(genitive) *XXXV et filia sua anni* (nominative) *V* as "Latinus aged 35 years and his daughter of 5." With this trifle we need not trouble ourselves further in the face of more serious matters. *Hic signum* does not mean *hoc signum*: if *signum* means "a monument" the inscription would say that this stone is the monument of a monument, not the monument of Latinus. But *signum* does not mean "a monument": it means "a sign." Lewis and Short, Du Cange, and the recently published Oxford *Mediæval Latin Word-List* give us between them a long list of meanings for *signum*, but "monument" is not one of them. And who made the monument? *Fecerunt* is plural: therefore *nepus*, if that be the nominative to the verb, must be plural also. But though we expect, and find, much bad Latin in these ancient inscriptions, *nepus* = **nepūs* = *nepotes* is intolerable! And even if it were not so, the interpretation would still be impossible. For it requires only a single glance at the inscription to see that the last three lines, *nepus Barrovadi*, are an afterthought, added by another hand. The **R** and the **S** used in these words are of a form quite different from the corresponding letters in the rest of the inscription. So that in any case *nepus* could not possibly be the nominative of *fecerunt*.

The true translation is obvious, logical, and grammatical. "Latinus and his daughter here made a sign. He was a kinsman of Barrovadus."

But what is the meaning of the statement that these two people, one of them a child of five, "made a sign"? The answer is given by a small fact of immense significance, which seems to have escaped notice.

Through the words **IC SINVM**, line 8, there runs a horizontal line. A second line, starting from the middle of the third **X** in line 5, cuts vertically through this horizontal line, and runs down to a point some distance below the inscription. These two lines are certainly artificial: they are quite clear in the photographs above referred to: and I believe them to be meant for an essential part of the epigraph, and to be read, in connexion with *signum*, as *crucis*. And here, *crucis signum fecerunt* can hardly be anything but a euphemism for "died a death of martyrdom." Quite possibly this was by actual crucifixion: some such horror seems to be expressed by the reticence of the inscription. Constantine had abolished crucifixion throughout the empire: but some barbarian persecutor, in an excess of morbidity, might quite well have revived it, as a suitable treatment for Christians. I have heard somewhere that certain early Jesuit missionaries in Japan were put to death by this method, in which their own teaching had inevitably instructed the inhabitants.

Be that as it may, I offer the following as the true rendering of the epitaph:—

We praise Thee, Lord.
Latinus, a man of 35 years, and his daughter,
five years old, here Bore Testimony,
[He was a kinsman of Barrovadus]

and I claim that it possesses the following advantages:—

- (1) It gets rid of the plural *nepus*.
- (2) It brings Barrovadus, presumably a man of local importance, into the picture.
- (3) It explains the triumphant *Te Dominum Laudamus* at the beginning of the inscription—an opening which would hardly be suitable to an ordinary epitaph.
- (4) It explains the emphasis laid on the *age*, rather than the *name*, of the child: the use of *hic*: the otherwise inexplicable word *signum*.
- (5) It explains why the genealogical statement, *nepus Barrovadi*, is separated from the name of the person to whom it belongs. As a rule name and kin form one undivided whole.

There is only one other monument, in the series of ancient British epitaphs, specifying the age of a child: the monument of Rasteca, at Llanerfyl in Montgomeryshire. But Rasteca died in her thirteenth year, which in her time would have been regarded as little short of maturity. The author of the inscription before us had a special purpose in mentioning the ages of his subjects: perhaps he could not have found a better way to convey to his readers the gruesomeness of the event than by recording without comment how when a man in the prime of life was made a victim, his child, a mere infant, was compelled to share his doom.

The inscription cannot be old enough to be connected even with the last of the Imperial persecutions of Christianity—that of Diocletian, which, if we can believe the late ecclesiastical tradition of Alban of Verulamium, must have affected Britain. But there were later, unofficial, outbreaks: it may be that the event recorded on the stone was a local manifestation of an anti-Christian “drive,” of which another episode gave the occasions for the blistering indignation of St Patrick’s *Letter to Coroticus*. That would indicate the third quarter of the fifth century A.D. as an approximate date for the martyrdom of Latinus and his daughter.

In any case, this earliest of the long series of the “martyr’s memorials”

of Scotland is of extraordinary interest, and may be of real importance for the ecclesiastical history of the country.

As an appendix to this paper, I may take the opportunity of making some remarks on the much-discussed Yarrow Kirk inscription. I have examined this stone twice, and have come to the conclusion that the

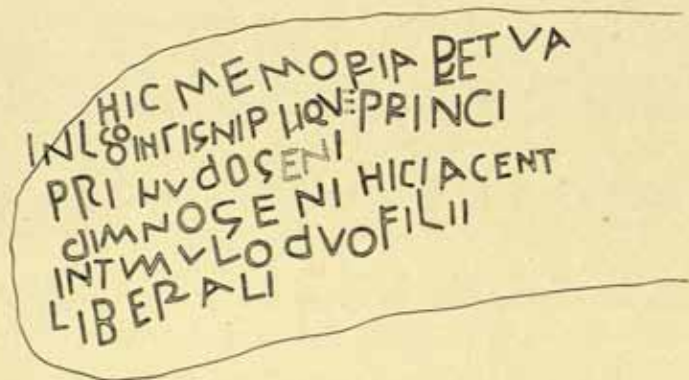


Fig. 4. Yarrow Kirk Inscription.

real difficulty in interpreting the inscription is not so much its worn condition as the fact that it consists of two independent inscriptions, carved at different times.

The original epitaph was:

HIC MEMOR PETVA
IN LOCO INSIGNI PIQVE
PRI NVD(OGEN)I.

The engraver forgot the second P of P(er)PETVA, misled by the P which he had just formed, and rectified his error in a makeshift manner, by adding a second loop to the crossed P. The two O's in LOCO also confused him, so that he left out CO and had to insert it above the line. The VE of PIQVE is ligatured and is very faint: the two l's in the same word are joined by a sloping scratch which looks artificial—perhaps some later tampering. PRI is an abbreviation for PRINCIPIS. The prince's name has usually been read NVDI, but the I is plainly an O, and the name was certainly longer. After the O the stone is worn smooth. I just managed to detect a G, but could find no more. It is impossible to be quite certain of the restoration suggested, but it exactly fills the

gap, is not inconsistent with the faint traces remaining, and shows us the names of two brothers constructed in the same way—a not uncommon practice.

The second epitaph begins without a break where the first leaves off:

— PRINCI
DIMNOGENI HIC IACENT
IN TVMVLO DVO FILII
LIBERALI.

The name looks like DIMNO, not DVMNO, unless we suppose the I to be ligatured to the M, making VM joined together. To understand the inscription all that we now require is to insert a full stop after this name, and the whole comes out easily thus:

- ¶ *This is an everlasting memorial
in the place (= grave) of the famous and dutiful
Prince Nudogenos.*
- ¶ [Memorial] *of Prince Dubnogenos.*
- ¶ *Here lie in a grave the two sons
of Liberalis.*

II.

A SHORT CIST CONTAINING A BEAKER AND OTHER RELICS
AT NEWLANDS, OYNE, ABERDEENSHIRE. BY PROFESSOR
ALEXANDER LOW, M.D., F.S.A. SCOT.

On 19th September 1935, while workmen were engaged excavating gravel on the farm of Newlands, Oyne, Aberdeenshire, they exposed a large stone slab. On raising the slab they found that it covered a stone cist on the floor of which were seen the remains of a skeleton and an urn. Next day I visited the site, and with the assistance of Miss A. M. Clark, of the Anatomy Department, made a detailed investigation and record of the interment.

The site of the cist (fig. 1) was in a cultivated field on a gravel knoll about 230 yards east-north-east of the farm-steading, to the north of Benachie, and at an elevation of about 400 feet above Ordnance Datum. From time to time gravel had been excavated from this site, and on investigation the slabs of another cist were found on the opposite margin of the knoll, about 4 yards to the north-east of the newly discovered cist. This earlier cist, discovered in 1932, was recorded by Dr J. Graham Callander¹ in the *Proceedings of the Society* for 13th March 1933, and was a typical short cist of the early Bronze Age containing the much decayed skeleton of a young man along with a beaker.

Over the cover-stone of the cist now described there was a depth of about 18 inches of soil; the cover was a large slab of somewhat irregular shape, 5 feet in its greatest length, 3 feet 6 inches at the greatest breadth, and varying from 4 to 7 inches in thickness. All the stones forming the cist were of the local red Benachie granite. The cist was formed by four slabs set on edge, one at each side and one at each end; and the main axis lay north-east and south-west. The side slabs converged slightly at the top; the stone at the north-east end overlapped the stone on the north-west side and just met that on the south-east side, while the stone at the south-west end overlapped the stone on the south-east side and just met that on the north-west side—an ingenious method of preventing the side stones from falling in. The depth of the cist was 1 foot 6 inches, and the inside measurements at the level of the

¹ *Proc. Soc. Ant. Scot.*, 1932-33, vol. lxxvii, p. 228.

SHORT CIST AT NEWLANDS, OYNE, ABERDEENSHIRE. 327

mouth were: length along the south-east side 3 feet 6 inches, and along the north-west side 3 feet 1 inch; breadth at the north-east end 1 foot 8 inches, and at the south-west end 1 foot 13 inches.

The position of the rather decayed skeleton indicated that the body

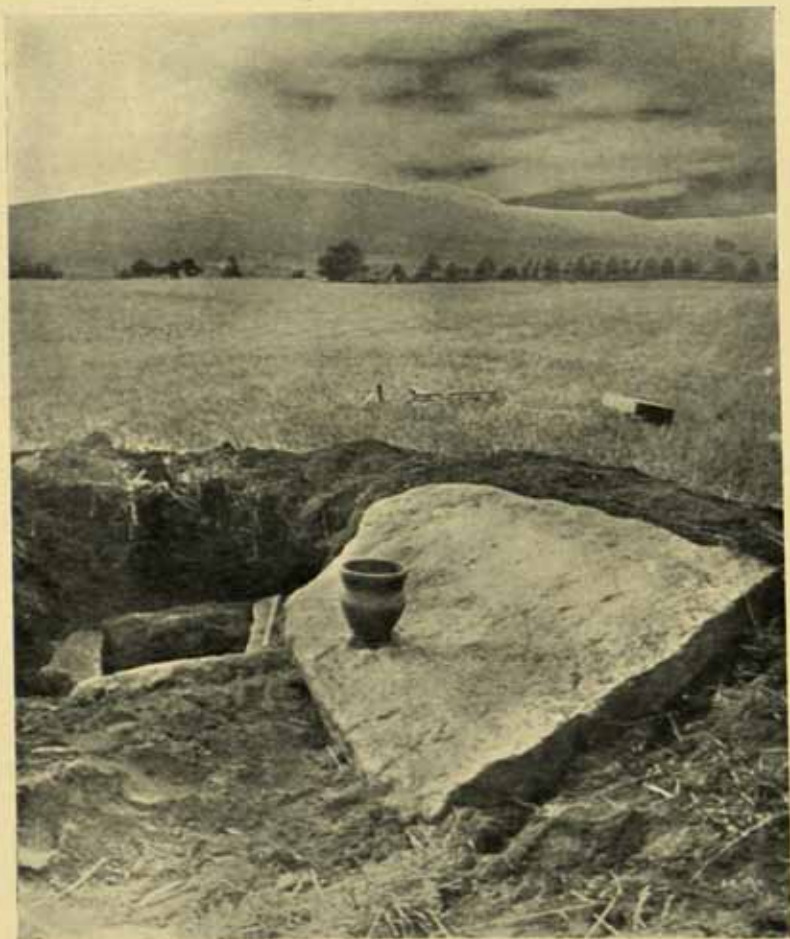


Fig. 1. Short Cist at Newlands, Oyne, Aberdeenshire.

had been placed in a flexed attitude on its left side, with the head at the north-east end and facing the south-east. The bones of the skeleton are in a fragmentary condition, but are those of a man about thirty-five to forty years of age, of medium build and of a calculated stature of 5 feet 4 inches. The skeleton is represented by the right half of the

skull with fragments of lower jaw; fragments of the following: vertebrae, ribs, right shoulder-blade, right humerus and forearm bones; nearly complete right femur and upper three-fourths of shaft of right tibia. The femur is not a stout bone, but its shaft is nicely moulded, showing torsion and flattening of the upper part—*platyermia*; the shaft of the tibia is flattened from side to side—*platynemia*.



Fig. 2. Beaker from Short Cist at Newlands, Oyne, Aberdeenshire. (1.)

The right half of the skull is intact, but as it has undergone post-mortem warping any measurements would not be reliable. It is moderately thick-walled, with well-developed superciliary ridges and mastoid processes. The sutures of the vault are open, except that the lower ends of the coronal suture are commencing to ossify. It has the characters typical of the short cist beaker skull; relatively very broad—*brachycephalic*—with flattened occipital region and short square face. In the north-east corner, beside the skull, lay the urn.

The urn (fig. 2) is a perfect specimen of the beaker class and is formed of hard reddish-brown clay. It measures $6\frac{3}{8}$ inches in height, $6\frac{1}{2}$ inches in diameter at the mouth, $5\frac{7}{8}$ inches at the neck, $6\frac{3}{10}$ inches at the bulge, and $3\frac{1}{2}$ inches across the base; the average thickness of the wall is $\frac{3}{10}$ inch, and the capacity is 75 fluid ounces. The outer

surface is decorated with three zones of ornamentation, one round the rim $1\frac{2}{3}$ inch broad, another round the shoulder $1\frac{2}{3}$ inch broad, and



Fig. 3. Bracer in Polished Slate—upper surface—from Short Cist at Newlands, Oyne, Aberdeenshire. ($\frac{1}{2}$.)

the third round the lower part about $1\frac{1}{2}$ inch broad. The decoration of the zones consists of narrow bands of vertical and oblique impressions enclosed by horizontal lines, all evidently executed by impressing the moist clay with a notched tool.

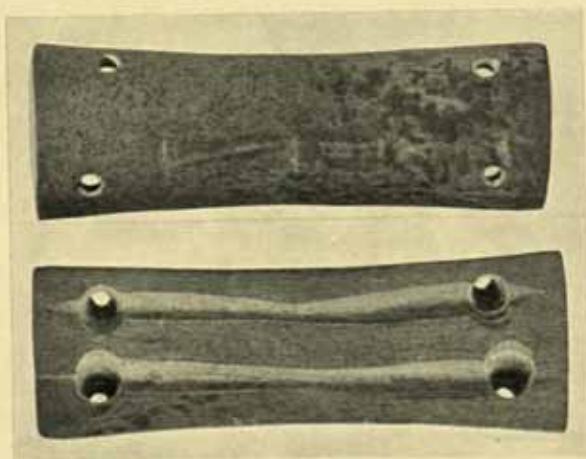


Fig. 4. Bracer in Polished Slate—upper and under surfaces—from Short Cist at Newlands, Oyne, Aberdeenshire. ($\frac{1}{2}$.)

Contained in the cist along with the skeleton and beaker were two stone bracers or bowman's wrist-guards, a barbed flint arrow-head, two flint knives, two small flint flakes, and three larger roughly chipped flints.

The two bracers are of polished slate, the smaller one being a putty-coloured phyllite, and the larger one a dark spotted phyllite—rocks of this kind are found in the not far distant Hill of Foudland. The smaller bracer measures barely 3 inches in length, $\frac{7}{10}$ inch in breadth,

and $\frac{1}{8}$ inch in thickness; the breadth is rather less in the middle than at either end; the upper surface is slightly convex, while the under surface is quite flat; there is one perforation at each end, $\frac{1}{8}$ inch in diameter,



Fig. 5. Barbed Flint Arrow-head from Short Cist at Newlands, Oyne, Aberdeenshire. ($\frac{7}{8}$.)



Fig. 6. Flint Knife from Short Cist at Newlands, Oyne, Aberdeenshire. ($\frac{5}{8}$.)



Fig. 7. Flint Knife from Short Cist at Newlands, Oyne, Aberdeenshire. ($\frac{5}{8}$.)

and countersunk from either side (fig. 3). The larger bracer measures $3\frac{1}{4}$ inches in length, $1\frac{1}{16}$ inch in breadth, and $\frac{2}{8}$ inch in thickness; the breadth is $\frac{1}{8}$ inch less in the middle than at either end; the upper surface is convex, the under slightly concave from side to side; at each end are two perforations countersunk from the under surface where the

diameter is $\frac{1}{4}$ inch and narrowing to $\frac{1}{10}$ inch on the convex surface; on the under surface two shallow parallel grooves run between the perforations at either end, each groove being about $\frac{1}{8}$ inch wide and $\frac{1}{10}$ inch deep—these grooves were probably for the string used in tying on the bracer (fig. 4). So far as ascertained there is no record of two bracers being found together in a cist burial in this country, and a bracer with two parallel grooves on the under surface seems to be unique.

The barbed arrow-head (fig. 5) is of an almost translucent flint and measures 1 inch by $\frac{3}{4}$ inch; unfortunately the stem is broken. The two small flint flakes are roughly oval in shape, each measuring 1 inch by $\frac{3}{4}$ inch. One flint knife (fig. 6) measures $2\frac{1}{2}$ inches long by $1\frac{7}{8}$ inch, is somewhat sickle-shaped, with straight back formed of cortex and the cutting edge convex and finely chipped on one surface.

The other knife (fig. 7), of blackish-brown flint, is oval-shaped, measuring 3 inches by $1\frac{7}{8}$ inch, and its margin showing flaking all round. There are also three pieces of roughly flaked flint, the smallest measuring $1\frac{3}{4}$ inch by 1 inch and the largest $2\frac{3}{4}$ inches by 2 inches; these have been rather roughly chipped and might be used as scrapers.

R. Laidlaw Smith, Esq., of Pittodrie, Aberdeenshire, has presented the contents of the cist to the University of Aberdeen.

III.

EXCAVATION OF A KITCHEN-MIDDEN NEAR GULLANE, EAST LOTHIAN. BY HARRY J. YOUNGER, F.S.A.Scot.

This excavation was carried out at the instigation of Mr James S. Richardson, Inspector of Ancient Monuments for Scotland. The situation of the midden is in the sand-hills at the eastern end of a bunker



Fig. 1. View of the Kitchen-midden near Gullane.

which runs inland for some 200 or 300 yards from the east end of Gullane Bay. The bunker runs parallel to and about 150 yards north of the third hole on Muirfield Golf Course. It was Mr Richardson who identified the kitchen-midden as such. He has frequently walked over this ground and had always been expecting to find prehistoric relics. About two years ago he noticed that the wind had bared a small mound, revealing heaps of shells. An inspection of the surface soon showed traces of prehistoric habitation, such relics as animal bones and bits of pottery indicating the probability of an early Iron Age settlement. The ground at that time belonged to Colonel Hamilton Grant of Biel, and he readily

agreed to the suggestion that an excavation of the site should be undertaken. Shortly afterwards the ground was sold to the Honourable Company of Edinburgh Golfers, and it is due to their kindness that permission has been granted for the work to be carried out. As I happened to be living close to the site, Mr Richardson proposed that I should do the excavation.

Fig. 1 gives a view of the midden. The plan (fig. 2) shows that the shape of the midden is roughly oval, the longer axis being about 75 feet and the shorter 35 feet. These figures are only approximate,

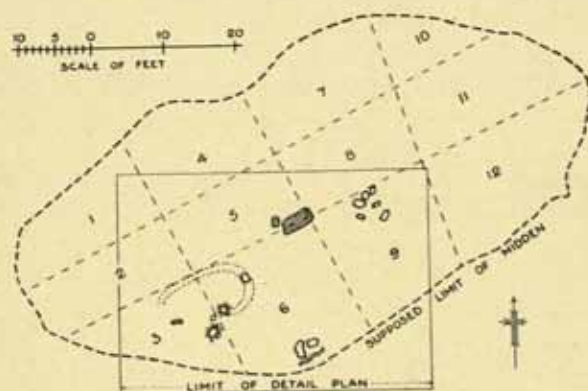


Fig. 2.

as the limits of the subject are naturally not at all clearly defined. There is a gradual slope down from the east to the west end.

The first stage of proceedings was to search the surface carefully. The commonest objects found were bits of bone, and these form the subject of a report at the end of this note. Other surface relics of archaeological interest will be dealt with when I give the list of the finds from the midden. After the surface had been cleaned up we began to remove the top sand, and soon came on traces of blackening at the west end of the midden, only a few inches below the surface. One naturally expected a fire-place, and efforts were made to expose the level on which it would be set, but it proved very difficult to assign an exact area which could be called such. My intention was to lay bare all the blackened area, leaving *in situ* all the stones in and around the probable site of the fire-place. Most unfortunately the site, when it was almost all laid bare, was visited by some wanton person who, in my absence, played havoc with it. Stones were pitched about, the blackened soil was dug into and utterly disturbed, and any hope of charting this important

area on its northern and eastern sides, but they could not be said to be at all definite, and the line of them is lightly marked on the plan. It is not possible to say that any particular area was a fire-place, as the blackening of the soil was very irregular, being well marked in some places and only slight in adjacent areas. One got the impression that fires had been kindled and the ashes strewn about anyhow, thus giving very irregular blackening over a fairly wide area. A further difficulty in fixing the *locus* of the fire-place was the presence of clay. This was found in varying quantities at different parts of the excavation, mixed up with the blackened subsoil. The largest single piece was one of about 500 cubic inches, lying at the western end of the blackened area, with a number of bones lying below it, and some small "chucky-stanes" mixed up in it. Close to this was a lump of prepared clay, such as could be held comfortably in the hand and showing, in fact, traces that it had been so held. Mixed with the clay at several places we found traces of a bright red substance which was analysed as a compound of iron and oxygen. Small amounts of charcoal also were found among the clay, but the quantities were too small to enable one to identify the wood from which it was made. Another substance found among the clay was a black granular gritty material which has been analysed as a compound of carbon, oxygen and iron.

Some 17½ feet north-east from the eastern end of the blackened soil there was a group of largish stones which suggested that there might be another fire-place. Excavation, however, showed no traces of discoloration of the subsoil. These stones were of whinstone and bastard sandstone. Fragments of pottery moulds were found amongst them. The ground slopes down to the north immediately below these stones, and at a depth of about 6 inches in this slope there were discovered eight pieces of what seemed to be a round-bottomed pottery vessel, two of the bits showing part of an everted lip. The fragments, some of which have been reassembled by Mr A. J. H. Edwards, are shown in fig. 4. At the first glance its form and texture suggested that it might be Neolithic, but recent discoveries in Scotland of round-based vessels in an Iron Age context make this attribution very doubtful. A curious incident was that along with these fragments was unearthed a cigarette card of the Prince of Wales opening the Shakespeare Theatre at Stratford-on-Avon in 1928. Fortunately the date marked on the card saved the excavator from the pitfall of trying to prove the card contemporaneous with the vessel.

There is reason to believe that bronze casting was carried out on the site, as numerous small pieces of moulds, crucibles and bronze were

collected. Here again a curious coincidence befell, as several large pieces of bronze were found with very curious markings on them. It was only after very careful scrutiny that it was ascertained that they were parts of the nose-cap of a modern shell. With a very little imagination it could easily have been suggested that they formed part of a prehistoric bronze ornament.

In addition to the fragments of moulds and crucibles, many pieces

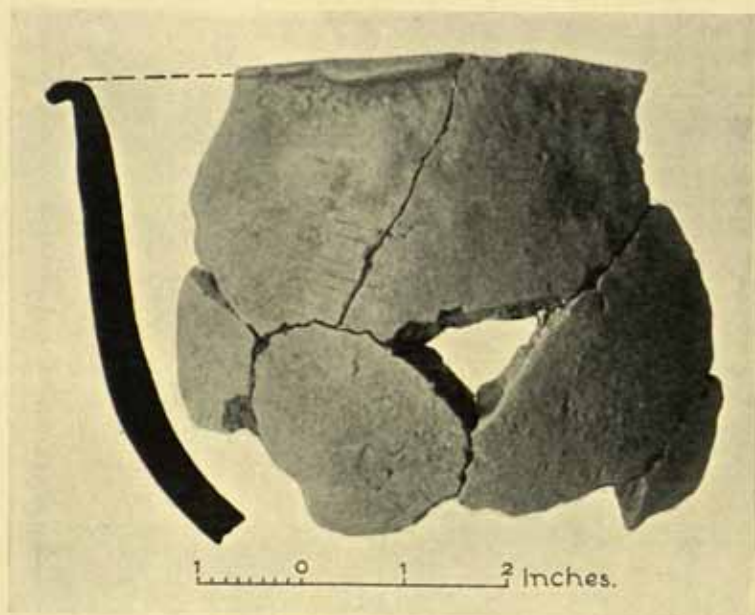


Fig. 4. Part of a Vessel of Pottery.

of rough pottery were collected, but none was large enough to enable one to see what were the shapes or sizes of the vessels.

The list of miscellaneous finds from the midden is quite considerable:

1. Plate of whale's bone, 7 inches long, 3 inches broad at its base, narrowing by two stepped shoulders to a point, and $\frac{1}{2}$ inch thick.
2. Jet bead, diameter .45 inch (fig. 5, No. 1).
3. Two portions of armlets of shale, the chord of each segment being $1\frac{1}{2}$ and 1 inch respectively (fig. 5, Nos. 2 and 3).
4. Small spotted object of stone?, length .4 inch, breadth .25 inch.
5. Quadrilateral whetstone, length of sides 1.8, 1.5, .75, and .7 inch (fig. 5, No. 4).

6. Piece of bronze wire, 1·1 inch long, hammered into quadrangular section of about $\frac{1}{16}$ inch, one end being chisel-shaped, the other imperfect (fig. 5, No. 5).

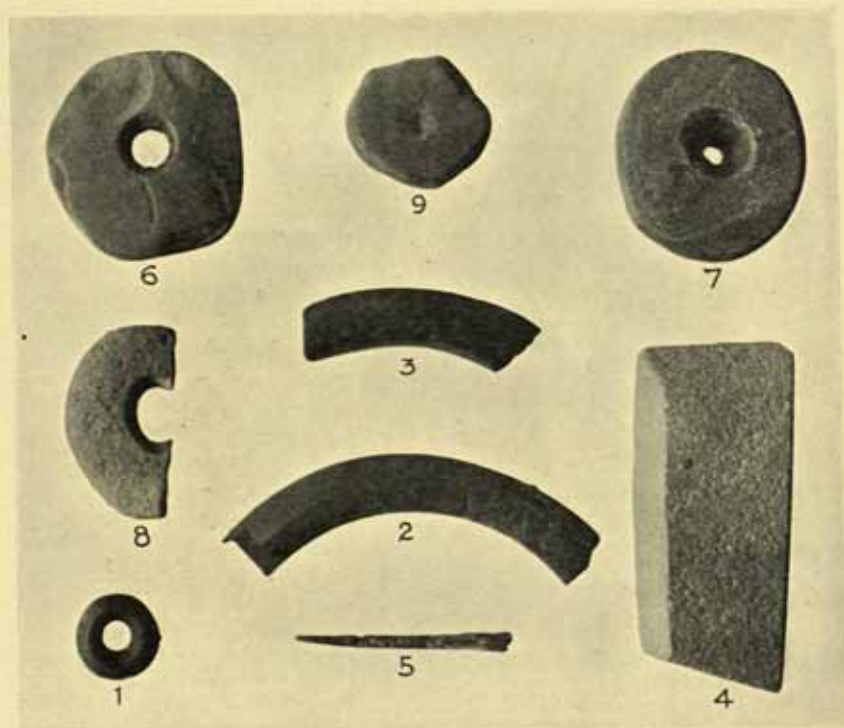


Fig. 5. Objects of Stone, Shale, and Bronze. (1.)

7. Three scrapers, one of quartz, two of chert.

Dimensions :

- (a) 1·1 inch long, ·7 inch broad, ·4 inch greatest thickness.
 (b) ·9 " " " ·8 " " " ·4 " " "
 (c) 1 " " " ·8 " " " ·2 " " "

8. Slightly chipped piece of flint.

9. Two hemispherical bone objects: (a) diameter of base 1·8 inch; height 1·2 inch; a hole is bored through it, the diameter of the hole at each end being ·25 inch; the passage narrows in the centre to a width of less than $\frac{1}{16}$ inch. The object resembles a whorl, but could not be one owing to the contraction of the passage (fig. 6).

(b) shows the perforation bored from the under side, not exactly at right angles, and tapering towards the top; the diameter of the base is $1\frac{9}{16}$ inch and the height $\frac{3}{4}$ inch.

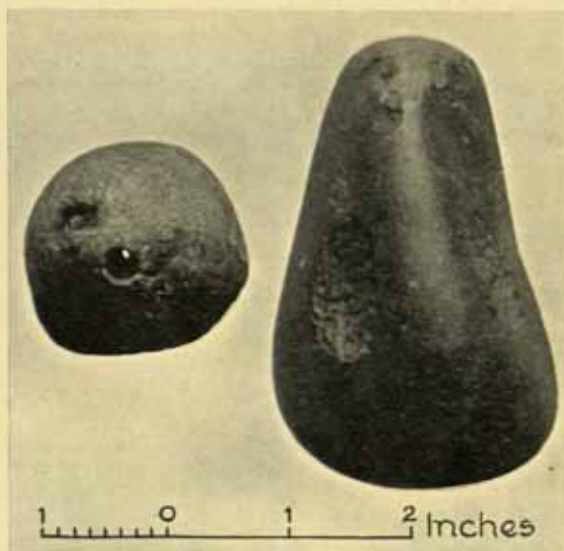


Fig. 6. Perforated bone Object and Hammer-stone.

10. Three hammer-stones.

Dimensions :

- (a) $4\frac{1}{4}$ inches long, circumference 9 inches. This is a very good specimen and shows exceptionally deep marks at the points of contact.
- (b) $3\frac{1}{2}$ inches long, circumference $6\frac{1}{4}$ inches. This stone has the thumb and forefinger grips clearly marked (fig. 6).
- (c) length 3 inches, circumference $3\frac{1}{2}$ inches.

11. Four perforated stone discs, two being complete and two incomplete.

Dimensions :

- (a) greatest diameter 1.1 inch, thickness .25 inch; the perforations are countersunk and concentric (fig. 5, No. 6).
- (b) similar dimensions, but the countersunk perforations are not concentric (fig. 5, No. 7).

- (c) similar dimensions, but the disc has been broken and only half remains (fig. 5, No. 8).
- (d) greatest diameter .75 inch; thickness .3 inch; only the beginnings of a perforation on each side are apparent (fig. 5, No. 9).

Large numbers of similar stones have been found in central Aberdeenshire. A paper on the subject is to be found in the *Proceedings*, vol. xxxvii. p. 166.

12. Four pot lids, two being good and two indifferent specimens.

Dimensions :

- (a) greatest diameter 3 inches, thickness $\frac{1}{2}$ inch.
- (b) " " 2 " " " .3 inch;
- (c) " " $4\frac{3}{4}$ " " " .45 inch;
- (d) " " 4 " " " $\frac{1}{2}$ inch.

13. Roman coin, has been examined by Sir George Macdonald who reports that it is of the reign of Theodosius I. (A.D. 376-394) and was minted at Constantinople. *obv.* DN THEODOSIUS PFAVG: bust of Theodosius r. laureate. *rev.* Victory l. holding wreath and palm: around VICTORIA AVGGG in ex. S CON.

14. A large number of pieces of pottery, crucibles, and of a mould, and bronze droppings. None of these in themselves are worthy of note. A certain number of flint chips were also found.

I am indebted to Miss Margery I. Platt, M.Sc., Royal Scottish Museum, for the following report on the animal and bird remains and shells found in the midden:—

The contents of this kitchen-midden excavated at Gullane so far as animal remains are concerned represent a varied assembly of animals, domestic and otherwise. Those of food value, bovine remains in particular, have been considerably broken up for various purposes at the remote period of their accumulation. Since then the fragments have become impregnated with mineral salts and, in consequence, are unusually hard, a fact consistent with their inclusion in a sandy soil. Most notable in this connection are the fragmentary remains of the whale, whose bones, usually so light and porous, have been transformed into extremely hard and heavy objects. Although the majority of the relics comprise those of animals used for food, the dog, pony, and birds undoubtedly had other uses. The various species are recorded below in order of their numerical importance.

Ox.

Remains of this domestic species are more numerous than those of any other animal. They are small in size, the majority probably being immature, and of a shorthorn variety. Many bones have been split longitudinally for the extraction of marrow.

Red Deer (Cervus elaphus).

This is not so well represented as the ox. Fragments of heavy antlers and a large-sized axis vertebra prove certain individuals at least to be of larger size than red deer of to-day. These particular relics are therefore of the old Scottish Red Deer, which were banished from East Lothian prior to historic times.

Pig.

Although the relics of this animal are very scanty, both young and mature animals are represented.

Horse.

Remains of this are very few, and indicate a breed of slender build.

Whale.

Fragments of limb bones and vertebræ of a very large whale occur. They are comparatively hard, not so brittle as in most cases, due to infiltration of mineral salts from the sandy soil.

Sheep.

Only four bones of this species remain, one being a portion of a massive horn. If these relics do not represent a later intrusion, then the presence of a large-horned breed similar to the Soay is indicated.

Dog.

Part of the single mandible of a dog is present which was evidently an animal of rather large size.

Birds.

The wing bone of a Guillemot (*Uria a. aalge*) and the pelvis of a Mallard (*Anas p. platyrhyncha*) are represented.

Shellfish.

Many shellfish, derived no doubt from the neighbouring beach, were

probably used as food. These include limpets (*Patella vulgata*), oysters (*Ostrea edulis*), razorshells (*Ensis ensis*), "buckies" (*Buccinum undatum*), a winkle (*Littorina littorea*), a scallop (*Pecten maximus*), and a sugar-shell (*Cyprina islandica*).

There were several bones of the rabbit, which are however of no archæological importance.

Evidence from the animal remains leads to the assumption that the relics are of late prehistoric or early historic date.

IV.

- (1) CARMINNOW FORT; (2) SUPPLEMENTARY EXCAVATIONS AT THE VITRIFIED FORT OF FINAVON, ANGUS; AND (3) SOME BRONZE AGE VESSELS FROM ANGUS. BY PROFESSOR V. GORDON CHILDE, B.LITT., F.S.A.SCOT.

(1) CARMINNOW FORT, STEWARTRY OF KIRKCUDBRIGHT.

The area marked "Earthworks" on the O.S. map (xiii. N.W.) with the exception of the highest corner is occupied by a plantation of firs. These were still standing at the time of excavation, and between them the bracken was growing 3 feet high. Such vegetation very effectively masks surface indications, while the roots have distorted the structure of the ramparts and so disturbed the subsoil as to impede the recognition of post-holes. At the one point where the works extend beyond the limits of the plantation, the modern dyke built to enclose it and a foot-track following the line of the ancient fosse have complicated the picture.

Moreover, the geological features of the glaciated district often simulate human works. At the site and generally in the vicinity the bedrock is covered with glacial deposits of varying depth and character. Our excavations and neighbouring quarry sections reveal everywhere as the ultimate subsoil a very sandy and gravelly sort of "boulder clay," always grey in colour. Its surface is often, but not always, covered by a sandy and stony till, differing from the "boulder clay" only by its orange-colour. The surface of the boulder clay is not naturally level but hummocky, furrowed by non-human agencies and strewn with

boulders. In the wood the till is in its turn covered by yellow loamy soil that may attain a depth of 4 feet, and has filled up natural depressions to that extent.

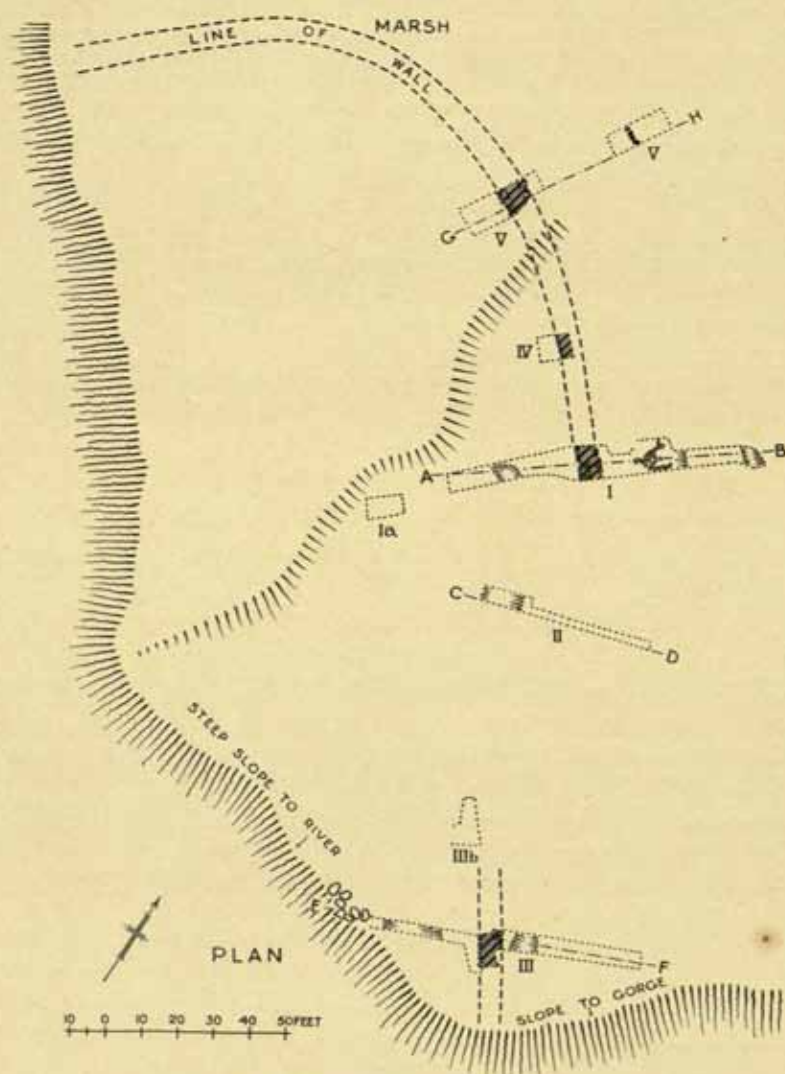


Fig. 1. Carminnow Fort: Plan.

The ramparts straddle a natural ridge of boulder clay, 515 feet above O.D., that slopes gently to the gorge cut by the Deugh. A curved section of works, much obscured by grass and trees, extended westward from the

ridge crest to the edge of the gorge and bounded the higher part of the fort about 510 feet above O.D. East of the crest an area lying on an average nearly 20 feet lower has also been enclosed by banks and ditches, dimly discernible among the trees and ferns. But some of the hollows in this lower area are certainly natural. Immediately at the foot of the ridge our sections 1, 2 and 3 crossed a hollow in which the surface of the boulder clay stood 492, 489, and 478 feet respectively above O.D. The hollow was found in each case to be filled up with 3 to 4 feet of loamy

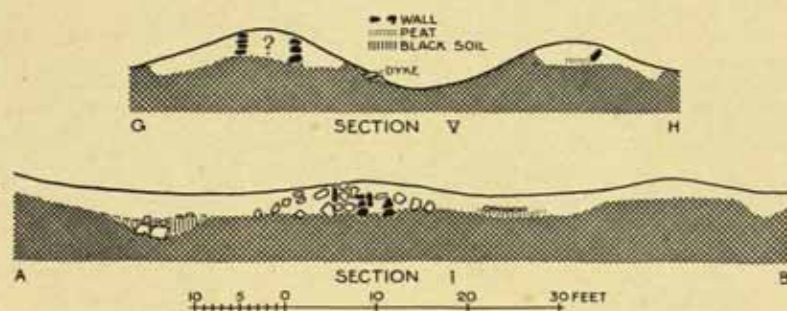


Fig. 2. Carminnow Fort: Sections through Wall.

soil, and contained many large boulders, but its rounded bottom betrayed its natural origin.

Beyond the depression the clay, here covered by orange till, rose to a second lower ridge, 496, 493, and 484 feet respectively above O.D. It was upon this ridge that the defences of the eastern side of the enclosure seem to have been erected.

The shallowness of the soil on the higher part of the fort made it improbable that relics should have been preserved there. Our operations were accordingly confined to the lower portions, where deep soil might have preserved relics, and to the highest corner, where the defences appeared particularly conspicuous. Trenches were cut across the works on the crest of the ridge and at points below it (cuts 5, 4, 1, 2, and 3). Cuts 1a and 3b were designed to explore level patches that might have been used for habitations.

In cuts 3, 1, 4, and 5 the innermost "defences" proved to be a rough wall or dyke of stones, or stones and turf. It had been badly distorted by tree roots and doubtless plundered for dyke-building. In the best-preserved section on the crest of the ridge the faces stood 30 to 33 inches high and were 8 feet apart. In section 3 the rampart was 7 feet wide. The inner face is composed of small stones—11 by 10 by 6 inches, 10 by 6 by 4 inches or less—not laid in courses but yet neatly fitted together

and tightly wedged (fig. 3). The foundation course of the outer face consists of large irregular blocks, as much as 3 feet high, with smaller stones filling in the chinks between them and laid upon them. The core is made up of large boulders packed tightly but without order and mixed with loose earth. In cut 1, slabs on edge had been used in places.

The strips of wall exposed in sections 1, 4, and 5 certainly form parts



Fig. 3. Inner Face of Wall in Section V.

of one continuous rampart that probably extended right to the cliff edge on the west. The section exposed in cut 3 in its turn runs down 55 feet from cut 3 to the gorge, but is not in line with the foregoing and does not seem to join on to it. In cuts 3b and 2 no convincing traces of walling were exposed, so that there may be a gap of nearly 100 feet where the wall is untraceable. This space doubtless includes the gate, but it is either overgrown with dense trees and bracken or traversed by a footpath, so that it could not be conveniently explored.

Beyond the rampart just described section 5 gives clear surface

indications of a ditch, but the plantation dyke and footpath made it an unpromising spot for excavation. A V-shaped ditch, 6 feet wide and cut to a depth of 2 feet into the grey boulder clay, was, however, definitely traced in cut 3 immediately outside the rampart. In section 1 there is a hollow, some 12 feet wide, beyond the rampart. Over this space the orange till is missing, perhaps because it had been dug away in antiquity, but the presence of a fosse cutting into the grey boulder clay could not be established here. On the contrary, resting upon the level surface of the grey "clay," we encountered a ruinous construction

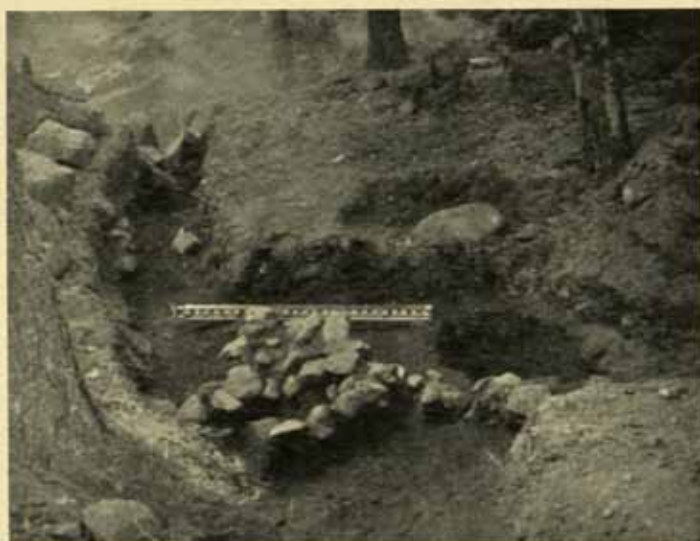


Fig. 4. "Hearth" in Section I.

occupying the southern half of our trench: rows of small stones, forming perhaps the bases of walls, enclose a roughly triangular space which was filled with black soil (? peat ash) to a depth of 5 to 7 inches (fig. 4). The subsoil under and at the edges of the enclosure was hardened as if baked. We may, therefore, be dealing here with an early fire-place.

Cut 5 revealed a definite counterscarp bank beyond the presumed ditch. The bank, composed of loose till, was kept in place by a kerb of stones set edgewise in the orange subsoil. Under the material thus retained was a layer of peaty earth marking the "old turf-line" at the time of the bank's erection. A low bank of gravel covers the boulder clay beyond the fosse in section 3, but no underlying turf-line establishes

its artificial character. In cut 1 the orange till, forming a deposit 12 inches deep beyond the hollow that contained the fire-place, looks and feels thoroughly natural and fades imperceptibly towards its base into the admittedly natural grey boulder clay.

The bank of orange till in section 1 is interrupted after 14 feet by a hollow, 6 feet wide, in which orange till is missing and even the surface of the boulder clay slopes down a foot, only to rise again to its former level. This hollow contained several boulders, too big to lift, mixed with dirty soil which, however, was free of bones or relics. The hollow may mark the line of a small outer ditch. A downward slope of the boulder clay at the end of section 5 may also mark the same ditch, but surface indications of its presence are nowhere distinct. In section 3 where the turf-line led us to expect a ditch, excavation showed the boulder clay running horizontal and undisturbed.

On the edge of the precipitous slope down to the river at the western end of section 3 a ridge of large stones protrudes through the turf. Comparable accumulations of stones can be observed at other points along the edge of the declivity throughout the enclosed area, but not on the open moorland beyond. It being unlikely that they are natural, these accumulations may mark the line of an old dyke or rampart along the edge of the gorge. A number of the stones near the end of section 3 were fully exposed, but not even excavation down to virgin soil revealed a trace of building or deliberate arrangement. Elsewhere too surface indications and rabbit-scrapes disclose only chaos. If there ever was a wall along the precipice, it must have been so flimsy that erosion and tree roots have utterly distorted it.

At no point in the areas excavated were indications of habitations obtained. However, the depression in cut 1, diagnosed above as natural, was filled to a depth of 18 inches with dark soil and stones under nearly 2 feet of recent yellow loamy soil. From this dark soil numerous minute scraps of burnt bone and an unworked flint chip were recovered. A similar band of dark soil and stones, this time only a couple of inches thick, was encountered 2 feet below the turf in that part of the same hollow intersected by cut 2. In cut 3*b* another patch of dark soil, some 10 feet square in area and 2 to 6 inches deep, was uncovered, barely 1 foot below the modern turf. The area had once been used by a family of rabbits for a burrow, and it is possible that the colour of the soil is due to them. Scraps of finely comminuted bone, a couple of flint chips and one extremely minute fragment of what may once have been a pot were in any case discovered here. A few scraps of burnt bone also came to light against the inner wall face in section 5. Finally in section 3,

21 inches below the turf, the iron ferrule of a modern walking-stick was sticking in the inner face of the rampart.

The Society is indebted to Sir Alexander Gibb and to Sir Robert Macalpine & Sons, contractors for the Kendoon Reservoir, for the opportunity of examining the site prior to its submergence and for assistance towards the cost of the operations, and to Miss Stewart and Mr Turner, of the League of Prehistorians, for assisting in supervising the work.

(2) SUPPLEMENTARY EXCAVATIONS AT THE VITRIFIED FORT OF FINAVON, ANGUS.

In the hope of solving some of the problems left over from the previous two seasons' work, further sections were opened up in the fort in August 1935.

To reach the occupation level just inside the southern rampart, that had previously proved the most likely spot for relics, a new section, F,

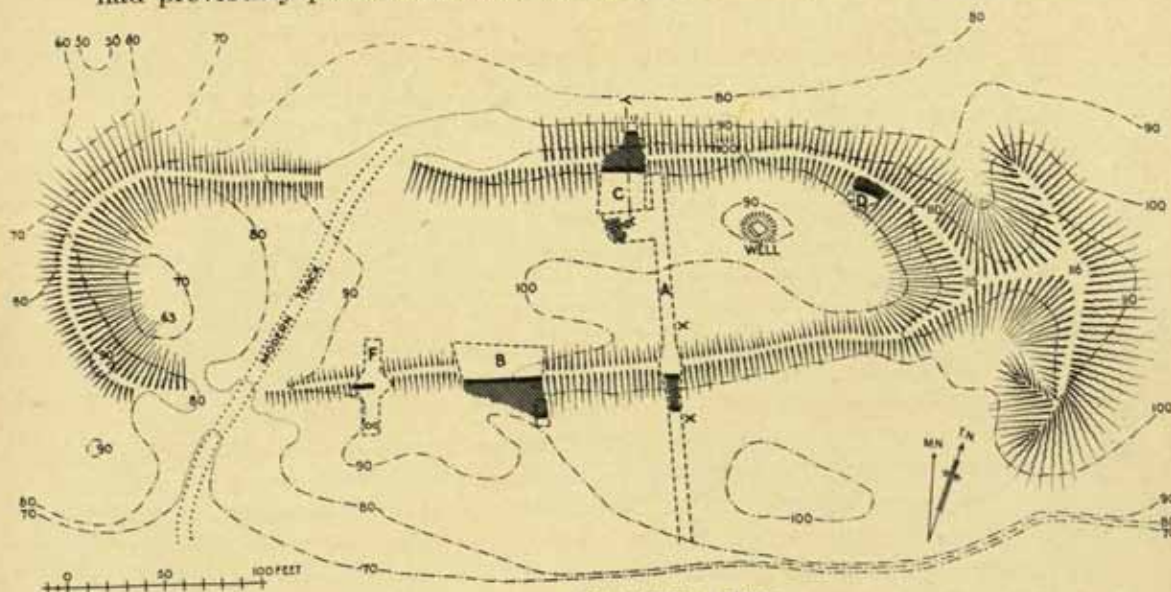


Fig. 5. Finavon Vitrified Fort: Plan.

8 feet in width was cut, beginning 37 feet west of the west end of section B.¹ (fig. 5). The bank of debris from the rampart was particularly low at this point, so that it seemed as if the occupation level should be

¹ *Proceedings*, vol. lxxix. p. 52.

reached here with a minimum of labour. The section was dug at right angles to the assumed line of the wall. Taking as base an extension of line B (the base of section used in 1934), the section reached rock-outcrop after 7 feet. From this point the outcropping conglomerate rose to a ridge (6.5 feet below datum) 14 feet from base and began to dip again 20 feet from base. The trench cut the line of the rampart's inner face 25 feet from base, but the crest of the superficially visible bank of debris coincided with the crest of the conglomerate ridge, 17 feet from base.

There was a gap in the wall face at the eastern side of the trench, but the foundations were picked up on the other side of the section and were followed for a distance of 12 feet by an enlargement of the excavation. The foundation course consisted mainly of small flat stones, about 1 foot long but only 2 to 4 inches thick. In places the second course was also preserved, and was found then to consist of larger stones; for instance, one was 18 inches long by 2 feet wide by 8 inches thick. The stones were laid directly on the very irregular surface of the conglomerate and were themselves irregular in shape, only the inner edges being straight. There was no evidence for a back face to this wall, but the slope of the rock behind it was in some places counterbalanced by a course of flat slabs below what, viewed from inside the fort, must be termed the foundation course. Owing to the uneven rock on which it rested the wall-foundation was not perfectly straight, but, with a maximum deviation of 9 inches, it continued the line of the face exposed in section B.

Section F was continued beyond the line of inner face to a total length of 50 feet. From the rock ledge on which the wall face stood the level of virgin soil fell $4\frac{1}{4}$ feet in 20 (to 13.40 feet below datum), the sloping subsoil being interrupted in places by step-like ridges of outcrop. Between 45 and 50 feet from base the trench exposed large quarried blocks of sandstone of the same form as those elsewhere used in the outer face of the rampart. This was to be expected in the section between 45 and 46 feet from base, but, despite an enlargement of the trench here, no continuous line of foundations came to light. On the other hand, the stem of a clay pipe discovered on virgin soil disclosed the activity of workmen last century. The rampart must have been quarried away right to its foundation in constructing a road to the plantation on the southern platform of the hill.

Inside the line of the inner face the trench cut through the usual deposit of black soil containing animal bones and fragments of pottery. Three pigs' skulls were noted among the bones but no other relics. Where the foundation course was missing, this black layer extended for a dis-

tance of 3 feet beyond the line of inner face. Beyond that point a thin purplish layer, similar to that noted immediately under the occupation layer in section B, covered the subsoil. Beyond the assumed line of the outer face there was another dark layer, comprising small pieces of charcoal of oak and other woods, but no large logs.

The gap in the foundation of the inner face must be due to the same disturbance as had removed the whole of the outer face and left instead a clay pipe-stem; there was no sign of a door-cheek where the inner face



Fig. 6. Slabs in Section C2.

ended. The complete removal of the rampart's foundations here in recent times shows that it would be futile now to look for the gateway which presumably lies right on the line of the main road across the fort as marked upon our plan.

To determine whether any structure survived in the interior of the fort, an area 20 feet wide along line A and ultimately 25 feet long along the southern margin of section C¹ was cleared down to virgin soil. In the eastern half of this area no constructions could be recognised, though slabs that might have fallen from the rampart were found as far as 9 feet south of C. In the western half of the area such slabs were more numerous. By removing loose and tilted slabs we were here left with a plausible-looking "pavement" of very irregular plan (fig. 6). The slabs of

¹ *Proceedings*, vol. xlix. p. 57.

this "pavement" (from $3\frac{1}{2}$ to 6 inches thick) all lie practically horizontal, with a difference of level of less than 6 inches from south to north. The subsoil on the other hand was dipping more rapidly, so that there was a difference in level of the virgin soil, underlying the slabs, of from 9 to 12 inches. In fact, the slabs furthest from the rampart rested immediately on virgin soil while those near the margin of section C covered other slabs and a deposit of black soil mixed with large pieces of charred wood. The latter deposit is evidently identical with that found so widely distributed in section C itself, where the logs covered the occupation deposit proper. Hence the pavement, if such it be, is later than the bed of charred logs and the underlying occupation layer described last year in section C.

On the margins of the supposed pavement several shallow hollows, none more than 6 inches deep, were observed to have been excavated in virgin soil. These were carefully plotted, but make no intelligible pattern. Quite possibly they are due only to moles. No relics nor even charcoal were found above the paving slabs. It is therefore still possible that these slabs, despite their curiously horizontal position and the neatness with which some seem to fit together, may after all represent merely the spill-over from the collapse of the rampart. If they have really been set to form the floor of some construction, the latter must be later than the main occupation of the fort defined by the "occupation layers" explored in 1934, and even later than the event which has left the layer of burnt logs all round the interior. If the pavement be accepted as evidence of a secondary occupation of the site, we might assign to the same period the fragment of a rotary quern found high up in the debris of the south rampart.

REPORT ON FURTHER BONE RELICS FOUND DURING THE EXCAVATION OF THE VITRIFIED FORT AT FINAVON, ANGUS, DURING 1935. By MARGERY I. PLATT, M.Sc., Royal Scottish Museum, Edinburgh.

With the exception of a broken shell of the common snail (*Cepaea nemoralis* (L.)), all the animal remains found at Finavon last year were of ordinary mammalian domestic stock, no doubt used for food. Unlike the previous year, no bones of a wild species such as the Red or Roe Deer occurred. Oxen, pigs and sheep are practically evenly represented in numbers of individuals.

Ox.

The fragments of bovine remains, because of their superior size,

appear to exceed in numbers those of the other two species; but this is not really the case, since the presence of only three animals can be estimated. The features exhibited are typical of young adults and in no instance are particularly large. They suggest a slenderly built ox of characteristic shorthorn variety. Measurements are given below of two complete cannon bones.¹ On reference to the figures it will be seen that the metatarsal resembles closely that recorded last year from the same site, which was compared with similar data from a small ox of Shetland race.

	<i>Metacarpal.</i>	<i>Finavon.</i>
Maximum length		172.5 mm.
.. width of proximal end		55.0 mm.
.. .. distal end		59.1 mm.
Minimum shaft		33.3 mm.

	<i>Metatarsal.</i>	
Maximum length		199.5 mm.
.. width of proximal end		39.0 mm.
.. .. distal end		48.0 mm.
Minimum shaft		23.2 mm.

Pig.

The remains of at least five animals can be recognised. They do not indicate a pig of large size. Examination of the lower jaws with teeth proves the presence of two mature specimens, a third rather older with last molars well worn, and lastly two young ones from the jaws of which the milk molars had not been shed.

Sheep.

The comparatively sparse relics of the sheep reveal the occurrence of four individuals: three adults and a very young specimen. There are no horn cores and little evidence of the actual breed present. The only bones of any significance are two radii of large size indicating a long-limbed sheep, rather above the mean in height. A left and a right radius were uninjured, exact proportions of which are recorded below.

	<i>Radius.</i>	<i>Left.</i>	<i>Right.</i>
Maximum length		161.0 mm.	152.5 mm.
.. width of proximal end		27.2 mm.	34.1 mm.
.. .. distal end		27.7 mm.	28.4 mm.
Minimum shaft		15.9 mm.	17.8 mm.

¹ *Proceedings*, vol. lxi. p. 79.

The majority of the bones, although broken as usual, did not give the appearance of having been purposely fractured for the production of artifacts, etc., and only one fragment was charred indicating the use of fire.

(3) SOME BRONZE AGE VESSELS FROM ANGUS.

The food-vessel shown in fig. 7 was unearthed some thirty years ago on Sandyford Farm, Kirriemuir (O.S. map, Forfar, Sheet xxxii). A ploughman was getting stones for building a bridge to replace the ford from which the farm takes its name and found a cist consisting of four uprights and a capstone. The cist is said to have contained two vessels and dark greasy earth. The latter feature points to a burial by inhumation; in the acid soil of Strathmore skeletons are liable to be completely consumed, but burnt bones are, of course, permanent and would attract attention. The cist was found on the southern slope of a low sandy knoll adjacent to a permanent spring. The ploughman insists on the sandy nature of the knoll in contrast to the more clayey soil of the rest of the field in which it lies, and it may be added that the knoll itself is not on the crest of the ridge. As no mention is made of a cairn and no trace of such is now visible, the cist may be presumed to have been a "flat grave."

One of the urns in the cist crumbled away, but the other was preserved in the farm-house till the furniture was sold in August 1935. The urn was then purchased by Provost Graham of Forfar, who has kindly allowed me to photograph and describe the vessel.

The food-vessel is composed of the usual soft, badly baked ware, and has been kept together since its discovery by a string round the neck¹ which was only temporarily removed while the photograph was being taken. The vessel belongs formally to Abercromby's type 1a. The shoulder is encircled by two broad grooves. Six ears or stop-ridges each span both grooves and project beyond the line of the intervening moulding. Each ear is pierced with two holes, corresponding to the grooves, but the holes are too small to take a cord, and it is doubtful whether they go right through the ear; in any case they are mere vestiges of the functional string-holes.

The upper two-thirds of the vessel are decorated with impressions, arranged to form herring-bone bands. Above the shoulder the elements of the design appear as mere cuneiform imprints; the flat tool that produced them has been impressed edgewise into the soft clay so that the top end went in furthest. In the lower rows the marks of teeth can just

¹ It is so figured in Allan Reid, *Antiquities of Kirriemuir*, p. 363.

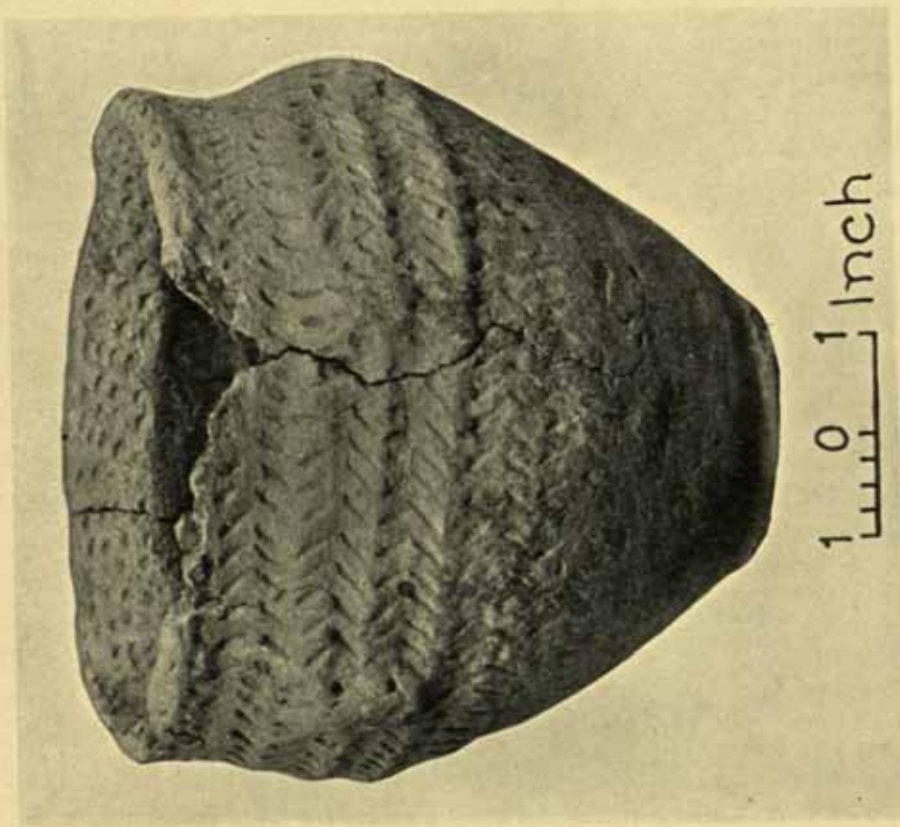


Fig. 7. Food-vessel from Sandyford, Angus. (n.)



be distinguished within the impressions. Evidently the implement used was the toothed stamp often employed for decorating food-vessels, although its teeth seem to have been badly worn down; quite possibly the same tool made the impressions in the upper rows though teeth-marks are invisible in them. There is one row of triangular jabs along



Fig. 8. Cordon Urn, Keithick.

the rim's outer edge and four similar rows along the bevelled interior. The base is plain.

In decoration (as in general form) the Sandyford urn agrees with many food-vessels from the eastern part of Britain, in contrast to the Irish types, found on the west. The concentration of food-vessels in Angus has already been noted by Dr Mitchell, and we can now add another dot to the cluster she has plotted.

In 1892 ploughing operations between Keithick House and the Isla (O.S. map, Perthshire, Sheet lxiii)¹ brought to light a small urnfield com-

¹ The 6-inch O.S. map records several cists in the vicinity

prising at least four interments. All the urns were standing mouth downwards over cremated bones; one contained a pigmy vessel which was unfortunately lost. The bases on all the urns were smashed by the plough, but the remaining sherds were collected and are now preserved in Keithick House. The proprietrix, Miss Brodie Wood, very kindly permitted me to examine and describe the vessels.

The best-preserved urn must have stood about 1 foot high. It belongs

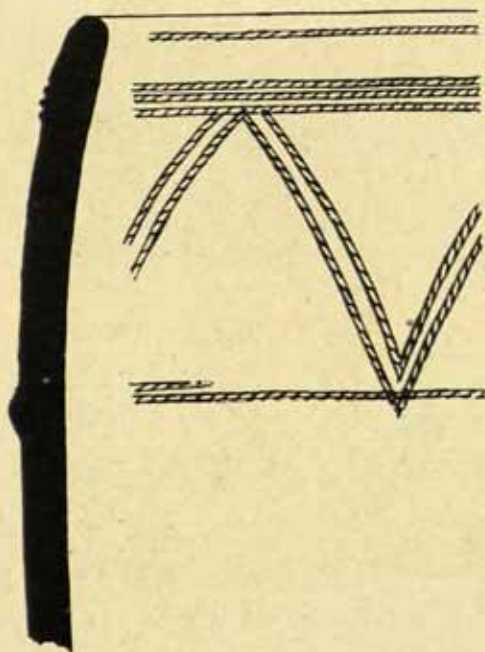


Fig. 9. Sherd of Urn 2, Keithick. ($\frac{1}{4}$.)

to Abercromby's type 6, the cordon urn (fig. 8). The zone above the upper cordon, corresponding to the overhanging rim of the ancestral form, is decorated with a lattice pattern formed by the imprints of a coarse twisted cord.

Urn 2 belonged to the same type, and exhibited on the upper register a chevron pattern formed by two parallel cord-imprints (fig. 9). The cord had been wrapped round the urn's body below the rim and just above the top cordon, and here the imprint of the overlapping end of the cord is just visible on the surviving sherd.

Urn 3 belonged to the same type, but is even more degenerate than

the foregoing. The surface was quite void of any impressed decoration. The only surviving cordon, about 3 inches below the rim, barely projects above the body of the vase, but a shallow groove, left by the potter's thumb, just above the cordon enhances its effect.

Urn 4, represented only by a small fragment, must have resembled urn 2 very closely.

In all the urns the rim is simply rounded (as in fig. 9), without any trace of flattening or internal bevel.

Typologically all the urns belong to the end of the local Bronze Age. Small groups of cinerary urns have been previously reported from Strathmore, but, like ours, they fall far short of the extensive urnfields of Fife and the Lothians.

MONDAY, 13th April 1936.

SIR GEORGE MACDONALD, K.C.B., President,
in the Chair.

A Ballot having been taken, the following were elected Fellows:—

Rev. HARRY ANDREW, Minister of Gilfillan Memorial Church, Gilfillan Manse, Ancrum, Road, Dundee.

Miss SHEILA M. MACDONALD, Blarour, Speanbridge, Inverness-shire.

W. SCHOLES, M.A., Senior History Master, The Abbey School, Fort Augustus.

W. H. TUNSTALL, Monkholme, Corbiehill Road, Davidson's Mains, Edinburgh, 4.

Miss M. E. Crichton Mitchell, Ph.D., F.S.A.Scot., exhibited photographs of three Scottish urns now preserved in the British Museum.

Miss Mitchell submitted the following statement about the vessels:—

Fig. 1 is a food-vessel. It measures $4\frac{1}{4}$ inches in height, $5\frac{3}{16}$ across the mouth, 6 inches at the widest part, and $3\frac{3}{8}$ inches across the base. It was inadequately figured in Abercromby's *Bronze Age Pottery* as No. 347, and was found at Stonehaven. No further details are available. It is a typologically early food-vessel, Irish in character, and notable for the attempted false relief ornamentation.

Fig. 2, No. 1, is a beaker. It measures $6\frac{1}{2}$ inches in height, 5 inches across the mouth, 5 inches at the widest part, and $3\frac{1}{8}$ inches across the



Fig. 1. Food-vessel from Stonehaven.



Fig. 2. Beaker from Easter Gollachy (No. 1), and Food-vessel from Stonehaven (No. 2).

base. It was found in a short cist 3 feet long and lying north-west and south-east at Easter Gollachy, Buckie, Banffshire. The urn was formerly

in the collection of Hugh Young of Burghead. In perfect condition, it is a particularly fine specimen of type C.

Fig. 2, No. 2, is a food-vessel. It measures 6 inches in height, $6\frac{3}{16}$ inches across the mouth, 6 inches at the widest part, and $2\frac{13}{16}$ inches across the base. It was found in a cist near Stonehaven. The urn is reminiscent of both beaker and food-vessel. But that it may belong to the climax of the Scottish Early Bronze Age is proved by an unpublished find from Kirkcaldy. In the Museum there an urn is exhibited similar in some respects to the example from Stonehaven. The Kirkcaldy urn was associated with perforated buttons, a bronze triangular blade, and a stone bracer.

I have to thank Mr Christopher Hawkes for drawing my attention to these urns and the Trustees of the British Museum for the photographs reproduced with this note.

The following Donations to the Museum were intimated and thanks voted to the Donors:—

(1) By H. B. MACKINTOSH, M.B.E., F.S.A.Scot.

Flat Copper Axe, the top and bottom edges straight, much pitted, measuring $5\frac{1}{8}$ inches in length, $2\frac{7}{16}$ inches in width at the cutting end, $1\frac{1}{2}$ inch at the butt, and $\frac{1}{2}$ inch in greatest thickness, found along with "fragment of a sword" (probably part of a halbert), in 1864, in Milton Moss, Knockando, Morayshire.

Lead Plaque of oblong shape, measuring $4\frac{5}{8}$ inches in breadth and $3\frac{11}{16}$ inches in height, showing a lion segeant regardant and supporting with its right paw a heater-shaped shield bearing the Royal Arms of England, Scotland, and Ireland.

(2) By E. S. HARRISON, F.S.A.Scot.

Two tattered fragments of brown woollen fabric stitched together with a worsted thread, one fragment showing a broad blue band on one edge, and two tattered fragments of black woollen fabric stitched together with black thread. Found by Mr Menzies of Dallas, Morayshire, 6 feet under the surface in the Yellow Bog above Dallas.

(3) By SIMON BREMNER, Corresponding Member.

Needle-like object of white Flint, with battered back, measuring $\frac{5}{8}$ inch in length; two Scrapers of grey Flint, four worked Flints, and part of a brass Buckle, from Freswick Links, Caithness.

(4) By WALTER G. GRANT, F.S.A.Scot.

Leaf-shaped Arrow-head of light grey Flint, measuring $1\frac{1}{4}$ inch by $\frac{9}{16}$ inch, and five Scrapers of black, red, and grey Flint, measuring from $\frac{17}{32}$ inch by $\frac{1}{2}$ inch to $\frac{15}{16}$ inch by $\frac{11}{16}$ inch, from the field above Midhowe Broch and Neolithic Cairn, Rousay, Orkney.

Thick leaf-shaped Arrow-head of mottled brown Flint, measuring $1\frac{1}{16}$ inch in length, $\frac{9}{16}$ inch in breadth, and $\frac{7}{32}$ inch in thickness; Point of cream-coloured Flint, measuring $1\frac{9}{16}$ inch by $\frac{9}{16}$ inch by $\frac{1}{4}$ inch; fifteen Scrapers of red, yellow, and dark grey Flint, measuring from

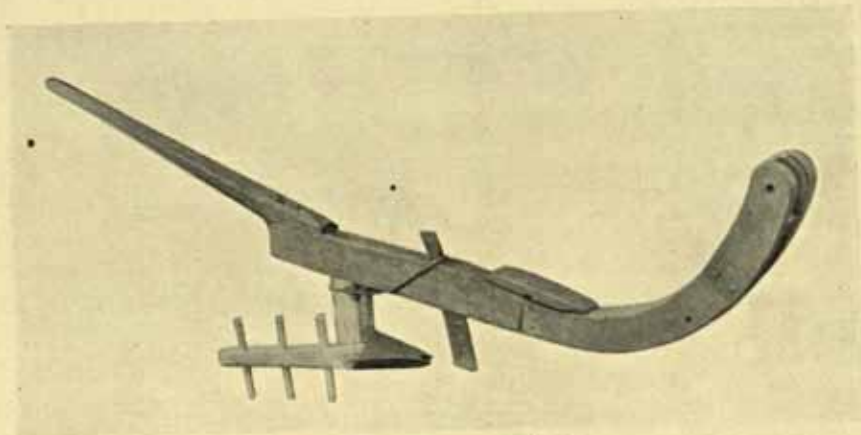


Fig. 3. An old Orkney Plough.

$1\frac{9}{16}$ inch by $1\frac{1}{8}$ inch to $\frac{9}{16}$ inch by $\frac{11}{16}$ inch; and four worked Blades of Flint, found in the field to the south of Bigland Farm, Rousay, Orkney, March 1936.

Fragments of coarse pottery, of indeterminate character, found in a mound south of Bigland Farm, Rousay.

Old Wooden Plough from Orkney, with a single stilt, the iron coulter and sock being present, also the original wooden wedge to keep the latter in position (fig. 3).

(5) By Dr DAVID RORIE, 17 Hazeldene Road, Aberdeen.

Silver Luckenbooth Brooch, of the crowned heart type, $1\frac{1}{4}$ inch in height, with the initials K.G. and FEAR GOD AND LOVE WERTO (Virtue), engraved on the back. It bears the maker's mark I B, probably for John Baillie, Inverness, c. 1740.

(6) By THE UNIVERSITY COURT, University of Aberdeen.

Carved oak cresting, measuring 2 feet $8\frac{1}{2}$ inches long, and $9\frac{3}{8}$ inches deep, from King's College Chapel, Aberdeen University.

(7) By JAMES CURLE, LL.D., F.S.A.Scot.

Flat, discoidal object of Lead, probably a Hat-badge, measuring $1\frac{7}{16}$ inch in diameter (fig. 4); on the front is a mell, with a rosette in the centre of the side in relief—a rebus for Melrose—against a reticulated background; on the back, not in the centre, is a loop for suspension. Found at a depth of 8 feet 6 inches in the orchard of St Cuthbert's, close to the gardener's house, in the channel bringing water to the reredorters, Melrose Abbey.



Fig. 4. Lead Hat-badge from Melrose. (1.)

(8) By JAMES SIMPSON, Abercorn, Hoptoun.

Old hand-made Mouse-trap of Wood, measuring $4\frac{7}{16}$ inches by $2\frac{1}{16}$ inches by $1\frac{7}{8}$ inch, found by the donor during the demolition of "The Castle," at Society, West Lothian.



Fig. 5. Carved Stone Ball, probably from Perthshire.

(9) By C. S. T. CALDER, F.S.A.Scot.

Boat- or adze-shaped object of Steatite, cut into shape with a metal knife, measuring 6 inches by $2\frac{1}{2}$ inches by $1\frac{1}{4}$ inch, found among loose stones in the core of a heel-shaped cairn at Dale, Delting, Shetland, in the summer of 1935.

(10) By SAMUEL SMITH, Corresponding Member.

Stone Whorl, measuring $1\frac{5}{8}$ inch diameter, found at Mumrills, Falkirk.

(11) By THOMAS HARVIE, Fineview, Drummore, Wigtownshire, through the Rev. R. S. G. Anderson, F.S.A.Scot.

Carved Stone Ball in course of being made (fig. 5). It has been intended to have six projecting discs, but only two have been marked out, measuring $2\frac{5}{8}$ inches in diameter, believed to have been found in Perthshire.

Loom-weight of burnt Clay, oval, perforated vertically, measuring $2\frac{1}{2}$ inches in height and $1\frac{1}{16}$ inch in diameter, found near Drummore, Kirkmaiden parish, Wigtownshire.

The following Donations to the Library were intimated and thanks voted to the Donors:—

(1) By H.M. GOVERNMENT.

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(2) By THE INTERNATIONAL FESTIVAL COMMITTEE.

Journal of the English Folk Dance and Song Society. Vol. ii. International Festival Number. London, 1935.

(3) By THE CHAIRMAN, PRINCE OF WALES MUSEUM OF WESTERN INDIA.

Report for the Year 1934–35. Bombay, 1936.

(4) By THE SECRETARY, MANX MUSEUM.

Journal of the Manx Museum. Vol. iii., No. 46. March 1936.

(5) By L. MACLELLAN MANN, F.S.A.Scot.

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The Middlesbrough Museums. Arbroath, 1935.

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Orkney Antiquities—The Old Roman Plough. By George Marwick.
Kirkwall, 1936.

- (8) By THE KEEPER, ASHMOLEAN MUSEUM.

Report of the Visitors, 1935. Oxford, 1935.

- (9) By Sir GEORGE MACDONALD, K.C.B., LL.D., President.

The Wilderness of Zin. By C. Leonard Woolley and T. E. Lawrence.
London, 1936.

Dritter Bericht über die Ausgrabungen in Nieder- und Oberleis, Bez.
Mistelbach, N.-Ö. By Ernst Nischer-Falkenhof, Wien, and Herbert
Mitscha-Märheim, Ebendorf. Vienna, 1935. (Reprinted from *Wiener
Prähistorische Zeitschrift*, xxii., 1935.)

- (10) By Mrs COLLINS, Wellington, N.Z., and Mrs MILSOM,
Wimbledon.

Additional Notes on the Occurrence of the Sperm-whale in the
Scottish Seas. By Professor Turner. (Reprinted from *Proceedings of the
Royal Society of Edinburgh*, 1871-72.)

Description of the Park Cwm Tumulus. By Sir John Lubbock,
Bart., M.P., F.R.S. (Reprinted from *Journal of the Ethnological Society
of London*, January 1871.)

Four Sketch Books containing Plans and Drawings of Orkney
Antiquities by George Petrie.

- (11) By ALEXANDER WHITELAW, F.S.A.Scot.

Sixty-nine Lantern Slides illustrating excavations made at the Roman
Fort on Bar Hill, Gartshore Estate.

The following Communications were read:—

I.

MARCUS COCCEIUS FIRMUS: AN EPIGRAPHIC STUDY.

By ERIC BIRLEY, M.A., F.S.A., F.S.A.Scot.

One of the most striking discoveries ever made in Roman Scotland was that of May 1771, when workmen engaged in the construction of the Forth and Clyde Canal dug into a rubbish-pit a short distance south of the fort at Auchendavy on the Antonine Vallum, and found in it, besides two huge iron mallets and a battered relief, four complete altars and a fragment from a fifth.¹ Occasionally there have been groups of altars found within a short time, and close together, in somewhat similar circumstances, in Britain—for example, there is the fine series that came to light at Maryport, in Cumberland, sixty years or so ago;² but in this case the interest of the find was enhanced by the fact that the four complete altars, and probably the fifth as well, had all been dedicated by the same man, Marcus Cocceius Firmus, centurion of the second legion Augusta, to as many as twelve different deities. Comment has been made, more than once, on the catholicity of his religion, and on the exceptionally large number of gods and goddesses that he thought fit to honour; and it was with this aspect of the Auchendavy altars in mind that Stuart, in his *Caledonia Romana*,³ wrote: "All things considered, the antiquary has reason to feel not a little grateful to Cocceius Firmus for the considerable addition which he has been the means of making to the Roman antiquities of Scotland." The point is one to which we must return presently, for it appears that just this combination of deities is capable of throwing considerable light on his previous career; but in the first instance I desire to draw attention to another place where a centurion Cocceius Firmus is referred to.

I. *The Digest*.—In the forty-ninth book of Justinian's Digest of Roman Law, chapter xv. deals with *postliminium*, the restoration of legal rights to Roman citizens who escaped from captivity among enemies; the sixth section is an extract from the first book *Ex variis lectionibus* of Sextus Pomponius, the eminent jurist of the second century, who began writing as early as Hadrian's time, though his *floruit* can be

¹ Cf. Macdonald, *The Roman Wall in Scotland*, 2nd ed., 1934, pp. 287-8, 427-31.

² Cf. *Lapidarium Septentrionale*, 1875, p. 429.

³ 2nd ed., 1852, p. 331.

shown to fall under Marcus Aurelius.¹ In it he quoted a specific case, as the Roman jurists often did: *Mulier in opus salinarum ob malefictum data et deinde a latrunculis exteræ gentis capta et iure commercii vendita ac redempta in causam suam reccidit. Cocceio autem Firmo centurioni pretium ex fisco reddendum est*—that is to say, "A woman condemned, for a crime, to hard labour in the salt-works, was subsequently captured by bandits of an alien race; in the course of lawful trade she was sold, and by repurchase returned to her original condition. The purchase-price had to be refunded from the Imperial Treasury to the centurion Cocceius Firmus." Before we consider the question of identification that at once suggests itself, it will be convenient if we dispose of the legal points involved, as we are enabled to do by other passages in the Digest.

1. I. xviii. 6, 8 (Ulpian): *qui universas provincias regunt, ius gladii habent et in metallum dandi potestas eis permissa est*—"Governors of whole provinces have the right to inflict sentence of death, and they are allowed the power of condemnation to the mines." *Provinciam regere* is not an uncommon expression; compare Tacitus, *Histories*, iv. 74, the speech of Petilius Cerialis to the Treveri and Lingones in A.D. 70, and the inscription of A.D. 225 from Greatchesters on Hadrian's Wall, CIL, vii. 732. The distinction is between senatorial *legati Augusti pro prætore* and equestrian *præsides* on the one hand, in whom the powers of chief justice, governor-general and commander-in-chief were vested, and subordinate *legati* or *procuratores*, to whom under the governor the immediate charge over a division of a province, or some branch of the administration of it, might be entrusted; such subordinates were competent to deputise for the governor in the majority of his functions, but not in cases for which death or penal servitude might be inflicted.

2. XLVIII. xix. 8 (Ulpian): *in ministerium metallicorum femine in perpetuum vel ad tempus damnari solent. simili modo in salinas*—"It is usual to condemn women, whether for life or for a term, to wait upon the convicts in the mines, and similarly to the salt-works." The convicts were assigned work according to their capacity: the men to act as miners, the women to cook for them and the like.

3. *Ibidem*: *damnatus servus . . . eius remanet cuius fuit antequam damnaretur*—"A slave so condemned remains the property of the man who owned him before his condemnation." That is to say, on the completion of a term of hard labour, slaves were to be returned to their original owners; but the provision could not apply, for obvious reasons, in the case of a life sentence.

¹ *Prosopographia Imperii Romani*, iii., 1898, p. 74, P 521, and the references there cited.

4. XLIX. xv. 5 (Pomponius): *in pace . . . si cum gente aliqua neque amicitiam neque hospitium neque fœdus amicitiae causa factum habemus, hi hostes quidem non sunt, quod autem ex nostro ad eos pervenit illorum fit, et liber homo noster ab eis captus servus fit [et] eorum*—"In time of peace, a race with whom we have neither friendship nor hospitality nor treaty of friendship are not indeed enemies, but property of ours that reaches them becomes theirs, and a free citizen of ours, if captured by them, becomes their slave." Here the status of the *extera gens* is clearly defined; and we shall see that it has an important bearing on the scene of the kidnapping, that the *latrunculi* came from such a people. The status of *latrunculi*, as opposed to *hostes*, is defined in the next passage.

5. XLIX. xv. 24 (Ulpian): *hostes sunt, quibus bellum publice populus Romanus decrevit vel ipsi populo Romano: ceteri latrunculi vel prædones appellantur. et ideo qui a latronibus captus est, servus latronum non est . . . ab hostibus autem captus, ut puta a Germanis et Parthis, et servus est hostium et postliminio statum pristinum recuperat*—"Enemies are those on whom the Roman people has formally declared war, or who have themselves declared war on the Roman people; the rest are described as bandits or robbers. For that reason, a man captured by brigands is not their slave . . . but a man captured by enemies, for example by Germans or Parthians, is their slave, and can recover his original status by the right of *postliminium*." Here external enemies are contrasted with bandits, who may be internal or, as in the case quoted by Pomponius that has prompted this inquiry, external.

From these passages it appears that the woman was a slave who, for some crime (of what kind we cannot say), had been condemned to a term of hard labour by the governor of the province in which she and her master were living; while at some salt-works, to which she had been sent to serve her sentence, she was abducted by bandits from across the frontier; by them she was sold, presumably to slave-dealers, and in due course her owner, the centurion Cocceius Firmus, had the good fortune to be able to buy her back. Finally, the Imperial Treasury was called upon, after litigation that brought the case to the notice of Pomponius and so preserved the story for us, to refund the purchase money to him. We must infer that the authorities of the salt-works were responsible for her safe custody, for the term of her sentence, and for returning her to her owner after it had expired; and that it was held to be through their negligence that she had left their custody, and Cocceius Firmus had been compelled to buy her back.

II. *The Question of Identity*.—To students of Roman prosopography it is well known that even the most plausible-looking identification,

prominent in the first two centuries of the Empire, in which the names Titus Statilius Taurus recur time and again.¹

Even where the ranks recorded are the same, or are compatible with a single career, it is essential to show identity of period, and if possible identity of place, in order to obtain probability for a proposed identification. In the case of the two Coccei Firmi, identity of period seems reasonably certain. The altars from Auchendavy cannot well be earlier than the advance under Lollius Urbicus,² and if the current view as to the duration of the occupation inaugurated by that advance is correct, they will not be later than the early years of Commodus;³ and the case quoted by Pomponius must be contemporary with his active career (as an examination of the similar cases quoted in the Digest shows), which, as we have seen, extended well into the time of Marcus Aurelius. The identity of rank is not in question; but it remains to be seen whether we can establish identity of place. In order to do that, it will be necessary to return to the passage in the Digest, and consider where the salt-works were situated.

III. *The Situation of the Salt-Works.*—Two points seem sufficiently clear, in the light of the evidence discussed above. The salt-works were in a province beyond the frontier of which there were tribes owing no sort of allegiance to Rome; and they were near enough to the frontier to be exposed to chance raids by such tribes. There were few provinces in which the necessary conditions could be found in conjunction. We must leave out of account the whole of the eastern frontier of the Empire; beyond it were organised kingdoms, enemies in time of war often enough, in time of peace in treaty relationship with Rome. Along the southern frontier there were tribes ready enough to raid, but salt-works were not likely to be found on the edge of the deserts, when the coasts provided such plentiful supplies; and where raiders came within reach of the coast, at Sala on the Atlantic coast of Mauretania Tingitana,⁴ there was no opportunity to find a serving centurion, for the province was a procuratorial one, with no legionary garrison. Across the Rhine and Danube frontiers, the majority of the tribes were in some sort of treaty relationship with Rome in this period;⁵ there were elaborate arrangements for the guarding of the frontier, though bandits could on occasions find their way through, and Commodus, as a well-known

¹ Cf. *Prosop. Imp. Rom.*, iii. p. 266, T 619.

² For the date of his governorship, cf. my note, *Eine neue Inschrift von Corstopitum in Germania* 20, 1936, pp. 21-5.

³ Cf. Macdonald, *op. cit.*, p. 482.

⁴ Cf. the long and valuable inscription from Chellah, *Année Epigraphique*, 1931, Nos. 36, 38.

⁵ Cf. Klose, *Roms Klientel-Randstaaten am Rhein und an der Donau*, Breslau, 1934.

series of inscriptions tells us, had to take measures to stop them;¹ and, though salt was certainly produced here and there, there do not seem to have been salt-works.² There are, indeed, only two provinces in which it seems that the necessary conditions might be found—Dacia and Britain. In each case the frontier system was in places less elaborate: the Dacian *limes* was not continuous,³ and to the north of the Antonine Vallum there was a tract, corresponding approximately to the later Kingdom of Fife, bounded only by the road to Inchtuthil, whose chain of forts and signal-towers offered no such serious obstacle to raiders as the closely guarded Vallum. In each case there were restive tribesmen across the frontier, always liable to raid, but seldom causing enough trouble to warrant a campaign against them. But Dacia must be ruled out, even though there were salt-works there;⁴ for in that province, as we learn from two or three inscriptions,⁵ the salt was not worked directly by the State. Instead, it was worked by private contractors who, we must suppose, would hire free labourers or employ slaves; we can hardly entertain the notion that a convict, for whose return to her original owner the State was responsible, would be placed at the disposal of a contractor for the term of her sentence. It seems reasonable, therefore, to suppose that the story belongs to the early annals of Britain, where we have no evidence for the working of salt by contract, and where we have a centurion of the same names recorded; and with the conjunction of time, rank, and place we will be justified in identifying Cocceius Firmus of the Digest with Marcus Cocceius Firmus of Auchendavy. But before we return to consider him once more, it will be desirable to pay some attention to the particular situation of the salt-works.

The geographer Ptolemy gives *Salinae*, "Salt-works," as a place in the land of the British tribe of the Catuvellauni—if we can trust the accuracy of the recorded position, somewhere in the neighbourhood of Boston in Lincolnshire;⁶ and the same not uncommon place-name occurs twice in the Ravenna List, first following Corinium (Cirencester),

¹ Dessau, ILS 8913, 395, and several other instances.

² The working of salt in the Roman period seems to have left fewer traces than that of pre-Roman times; for the Rhineland, cf. Schumacher, *Siedlungs- und Kulturgeschichte der Rheinlande von der Urzeit bis in das Mittelalter*, II. (Die römische Periode), 1923, pp. 258-9. Blümner's article in Pauly-Wissowa, I. A, 2075-99, is of little help.

³ Cf. Fabricius, art. *Limes* in Pauly-Wissowa, XIII., cols. 641-5.

⁴ Pauly-Wissowa, I. A, 1902, gives full references for the Dacian place *Salinae*, twelve miles from Potaissa, by the salt-works of Maros-Ujvar.

⁵ CIL, III. 1209 = Dessau, ILS 7147 (Apulum), 1363 (Veczel); *Année Epigraphique*, 1930, No. 10 (Domnesti); Rostowzew, *Geschichte der Staatspacht*, 1902, pp. 411-4, generalises from the evidence of the first two of these, but it seems questionable whether he is justified in doing so.

⁶ So Haverfield in Pauly-Wissowa, I. A, col. 1902.

and again between Derventio and Condate, applied to places that we may identify as Droitwich in Worcestershire, and Northwich or somewhere thereabouts in Cheshire;¹ but these places are all too far away from the northern frontier, and bandits of an alien race, to come into question. We must look farther north, and for salt-works of a different kind.

The production of salt by evaporation from sea-water, no less than by mining, was well known to the Romans; the process is described in some detail by the elder Pliny, in the thirty-first book of his *Natural History*,² from which extracts may be quoted in Philemon Holland's version:³ "As touching salt artificially, made by mans hand, there be many kinds thereof. Our common salt, and whereof we have greatest store, is wrought in this manner: First they let into their pits a quantitie of sea-water, suffering fresh water to run into it by certaine gutters, for to bee mingled therewith for to helpe it to congeale, whereto a good shower of raine availeth very much, but above all the Sunne shining thereupon, for otherwise it will never drie and harden. . . . In Fraunce and Germanie the manner is when they would make salt, to cast sea-water into the fire as the wood burneth. . . . But those verely of France and Germanie be of opinion, that it skilleth much what wood it is that serveth to the making of such fire. Oke they hold the best, as being a fewell, the simple ashes whereof mixed with nothing else, may goe for salt. And yet in some places they esteeme Hazell wood meeter for this purpose. Now when the said wood is on fire and burning, they poure salt liquor among, whereby not only the ashes but the very coales also will turne to bee salt. . . . There is no salt but raine water will make it sweet & fresh. The more pleasant it will bee and delicat to the tast, in case the deaw fall thereupon: but North-east winds engender most plentie thereof." In the light of this account, we may picture the conditions that guided a choice of a site for coastal salt-works; there must be a plentiful supply of fresh water (though in Crete "the salt is made in the like pits, but of sea-water onely, without letting in any fresh water at all"), as well as suitable wood for the fires, at least in the northern districts where that method was practised; and a place exposed to north-east winds could be accounted particularly well suited. Such conditions clearly obtained on the Fifeshire coast, where indeed salt is still produced to-day, I believe; and though there have not been traces noted of Roman workings, that is not to say that none existed.

¹ *Geogr. Rav.*, 427, 429.

² xxxi. 73-92.

³ *The Historie of the World, commonly called the Naturall Historie of C. Plinius Secundus*, London, 1601: *The second Tome*, pp. 414-7.

So far as I am aware, none have been sought for; and indeed, the tract north of the Vallum and east of the road to Inchtuthil seems to have received less attention from the students of Roman Scotland than its interest warrants. That road can only be explained, as far as the Antonine occupation is concerned, as a frontier enclosing the Fifeshire peninsula within the province; and it seems desirable to direct attention to the point, in the hope that an answer may be found to the question, for what reason it was considered desirable for it to be included. The Romans worked mineral coal in the region of Hadrian's Wall, but it was never important enough to warrant the occupation of the Fifeshire coalfield. But we cannot pursue that subject further now.

To sum up: conditions on the Fifeshire coast were eminently suitable for the production of salt; and in Fifeshire alone were bandits from across the frontier likely, without serious difficulty, to be able to raid salt-works and get away in safety, back across the frontier again. And if the salt-works were indeed there, we may suppose that the slave-woman's crime was committed while her master was at Auchendavy; that will explain why she was sent to serve her sentence there, rather than in the Mendip lead-mines or some place nearer to the second legion's headquarters at Caerleon.

IV. *The Dedications at Auchendavy.*—Let us now return to the Auchendavy altars, and see whether they are capable of throwing further light on their dedicator. The list of deities is a striking one, not merely for the large number, but for the variety of gods and goddesses that are mentioned. Taking the altars in the order in which they appear in the Corpus of Latin Inscriptions, the first¹ is in honour of Jupiter Best and Greatest, the special patron of the Emperor, the Empire as a whole and the army in particular;² and coupled with him is "Victorious Victory" (a pleonasm that reminds us of the "Military Mars" of a couple of altars from Maryport³), a description of that goddess that appears to be without a parallel. The next altar⁴ seems at first sight to be dedicated to two other proper Roman deities, Diana and Apolli; but, as Domaszewski has shown,⁵ when they occur in this order these are really the chief deities of Thrace and the neighbouring provinces, cloaked in the guise of their nearest Roman counterparts. The third altar, to the Genius of the Land of Britain,⁶ is an example of the

¹ CIL, vii. 1111.

² Cf. Domaszewski, *Die Religion des r. Heeres*, 1895, p. 22 *et seq.*

³ CIL, vii. 390-1; for dedications to the same Mars in Germany, cf. Rieme, *Das rheinische Germanien in den antiken Inschriften*, 1914, Nos. 3054-6.

⁴ CIL, vii. 1112.

⁵ *Op. cit.*, p. 53.

⁶ CIL, vii. 1113.

customary tribute that piety paid to the presiding divinity of the place or sphere in which one's lot was cast; ¹ we will return to it later; and the fourth is the most comprehensive of the lot, set up in honour of Mars and Minerva, the Campestres, Hercules, Epona, and Victory—the latter this time appearing without any special title.² Mars and Minerva are familiar figures in the Roman Pantheon; the former was worshipped throughout the army, as was only natural,³ whilst the latter found special favour among those grades which were open in particular to men of some education;⁴ and Victory was naturally the object of universal worship in the Roman army, which obtained it so frequently. But the other deities are in a rather different category. It was not until the closing years of the second century that Hercules became the object of general worship in the army, and then it was because of his equation with the German Donar, as has been demonstrated by Domaszewski,⁵ and the increasing prominence of Germans in the military service. Before that time there is only one quarter in which he is to be found regularly—on the dedications of the *equites singulares* in Rome, to which we must turn presently. Epona and the Campestres are in a special category, as the patrons of mounted men. Epona was the goddess of horses; she, too, was widely worshipped, particularly by Celts. Indeed, it has been suggested that she was Celtic in origin,⁶ but her cult spread widely throughout the Empire—for example, we meet it in Thessaly, in Apuleius's novel *The Golden Ass* ⁷—and it seems safest to leave the question of her origin open;⁸ she was worshipped by muleteers and ostlers as well as by cavalry-troopers or even legionaries. In contrast to her the Campestres had a strictly limited sphere of influence; we meet with them only on altars set up by mounted men of the auxiliary arm, in cavalry regiments or in the many infantry regiments that included a proportion of horse; they were the deities who presided over the parade-ground or riding-school where, often enough, a temple was set up in their honour, as by the *ala I Asturum* at Benwell, on Hadrian's Wall, in A.D. 238.⁹ They were Gallic in origin—like the drill-words to which Arrian refers,¹⁰ an indication that the

¹ Cf. especially Macdonald, *op. cit.*, p. 430.

² CIL, vii. 1114.

³ Domaszewski, *op. cit.*, pp. 4, 33 *et seq.*

⁴ *Op. cit.*, p. 29; Vegetius, *Epit. rei milit.*, ii. 20, etc.

⁵ *Op. cit.*, pp. 7, 46 *et al.*

⁶ So Macdonald, *op. cit.*, p. 429.

⁷ iii. 27.

⁸ For a full discussion, cf. Keune, art. *Epona* in Pauly-Wissowa, vi. cols. 228-43.

⁹ CIL, vii. 510; Domaszewski, *op. cit.*, pp. 50-1.

¹⁰ *Tactica*, 33.

auxiliary cavalry of the Empire was mainly raised, at first, in Gaul¹—but there do not seem to be any dedications to them by civilians even in Gaul. The last of the altars, on which the dedicatory name is not preserved, is to Silvanus:² that rustic Roman god who achieved widespread popularity in many parts of the Empire—in Britain, for example, he is equated with the war-god of North Cumberland, Cocidius³—but above all in Illyricum; there, as Domaszewski showed, his name was given to a native deity, and it is from the Danube lands that three-quarters of the dedications to Silvanus come.⁴ To sum up: the list includes a number of genuine Roman deities, though not so many as one might think at first sight; but there are others which seem to suggest a connection with the auxiliary cavalry, or with the provinces along the Danube.

"The cult of such an array of gods and goddesses passes the limits of what we should look for, even from the most catholic-minded of private individuals"—such is Sir George Macdonald's comment, at the close of his illuminating discussion of the Auchendavy altars; and he suggests that they were intended as official dedications, by Cocceius Firmus acting on behalf of the auxiliary regiment or detachment of legionaries whom he may be supposed to have commanded at that fort.⁵ But it does not seem likely that on an official dedication the name of the body, on whose behalf the dedication was made, would be omitted; we must ascribe the selection of this group of deities to Cocceius Firmus, and see whether it has anything to tell us of the man.

Dedications to groups of deities are not uncommon, though the groups are seldom as large as this; and it is usually possible to discover the reason that prompted the dedicatory to make his particular selection. Thus, Marcus Rubrius Zosimus of Ostia, the regimental doctor of *cohors IIII Aquitanorum* at Obernburg in Upper Germany, thanks Jupiter Best and Greatest, Apollo, Æsculapius, Salus and Fortuna for the health of the cohort's prefect, Lucius Petronius Florentinus;⁶ here we have the healing deities, whose co-operation was no less important than medical skill in effecting a cure. Again, Gaius Cornelius Peregrinus from Mauretania, tribune of a cohort at Maryport, dedicating to the Genius of the place, Fortune who leads men home, eternal Rome and

¹ Cheesman, *Auxilia of the Roman Imperial Army*, 1914, pp. 64–5.

² CIL, vii. 1115.

³ CIL, vii. 642; a recently discovered altar to Cocidius, from Risingham (to be published, in *Archæologia Æliana*, by Messrs Richmond and McIntyre), shows him with bow and hunting-dog.

⁴ Domaszewski, *op. cit.*, pp. 52–4 *et al.*; Klotz in Pauly-Wissowa, iii. A, col. 123.

⁵ *Op. cit.*, p. 431.

⁶ Dessau, ILS 2602 = CIL, xiii. 6621 (*cf.* also 6620).

good Destiny,¹ is plainly pining for a more congenial post. In the case of Cocceius Firmus, indeed, the list of deities is such a motley one that, at first sight, it might seem no more than evidence for syncretism, the unordered mixture of religious ideas. But it can be paralleled, and indeed surpassed, in one quarter—among the *equites singulares* in Rome.

These were a regiment of cavalry of the guard, first established, it seems, by Domitian towards the close of the first century;² in peace time they were stationed in the capital, where they had permanent barracks, and they accompanied the emperor to the front in time of war. In relation to the auxiliary regiments of the frontier armies, they occupied the same privileged position as the prætorian guard did to the legions. But while the prætorian guard was recruited, until the time of Severus, by direct enlistment from a privileged portion of the citizen body, the *equites singulares* seem to have been kept up to strength by the transfer of picked men from the *alæ* in the provinces,³ as well

COMPARATIVE TABLE.⁴

AUCHENDAVY.		ROME.				
		128	132	133-136	137-141	?
CIL, vii. 1111	I.O.M.	×	×	×	×	×
	Victoria Victrix	—	—	—	—	—
1112	Diana	—	×	×	×	×
	Apollo	×	×	×	×	×
1113	Genius ⁵	×	×	×	×	×
1114	Mars	×	×	×	×	×
	Minerva	×	×	×	×	×
	Campestres	×	×	×	×	×
	Hercules	×	×	—	×	×
	Epona	—	×	×	×	×
	Victoria	×	×	×	×	×
1115	Silvanus	×	×	×	×	×

¹ CIL, vii. 370.² Cf. Liebenam in Pauly-Wissowa, vi. cols. 312-21; the men discharged in 118 must have entered the army under Domitian (CIL, vi. 31138), and it seems simplest to suppose that the regiment was formed by him, and retained by his successors, rather than that Trajan was its founder.³ Cf. Cheesman, *Auxilia*, pp. 80-1; Pauly-Wissowa, vi. 318.⁴ Cf. CIL, vi. Add., p. 3069, where there is a full comparative table of the inscriptions from Rome, that removes the need for references to particular inscriptions here; the last column in this table is based on the undated fragments, CIL, vi. 31174-5, which are probably later than A.D. 141.⁵ In Rome, *Genius singularium Augusti* takes the place of the Auchendavy *Genius terra Britannica*.

(perhaps) as by the direct recruiting of likely men in the districts which supplied the *alae* with recruits. In consequence of this system, the *equites singulares* must at all times have contained a greater mixture of races and creeds than any single auxiliary regiment, mainly recruited either from the district in which it was first raised, or from the recruiting-grounds nearest to its place of garrison; and that will explain the great variety of gods and goddesses who found a place on dedications by the corps. By a happy chance, a long series of altars from its quarters in Rome are preserved; most of them were set up by groups of time-expired men, on the occasion of their discharge from the regiment, in the principates of Hadrian and Antoninus Pius; a few are due to individuals on a like occasion, or on the occasion of their promotion to the legionary centurionate—further advancement that we might well expect outstanding men in a *corps d'élite* to obtain. The list of deities varies somewhat; one or two are sometimes omitted, and they appear in varying order, but, as the accompanying comparative table shows, all the Auchendavy dedications with the exception of that to *Victoria Victrix* occur regularly on the altars of the *equites singulares*.¹ The parallelism is so striking that it does not seem reasonable to doubt that it is not due to chance. We must suppose that Cocceius Firmus, earlier in his career, had seen service with the *equites singulares*, and in their ranks had learnt to worship this distinctive array of deities.²

There are a number of instances recorded of promotion to the legionary centurionate from that corps. Thus, Marcus Ulpius Martialis, on another of the altars from its quarters in Rome,³ dedicates to Jupiter Best and Greatest, Juno, Hercules and the Campestres, on the occasion of his advancement by Hadrian from the rank of decurion (troop commander—as the place shows, in the *equites singulares*) to that of centurion in the first legion Minervia, whose station was at Bonn, in Lower Germany; and there are other examples, that need not be quoted here, of such promotion. It is not unreasonable, therefore, to infer something of his earlier career from the altars that Cocceius Firmus set up at Auchendavy; we may suppose that, before he joined the second legion in Britain as a centurion, he had commanded a troop of the *equites singulares*. In that case we may carry the investigation

¹ See p. 374, note 5.

² It may be conjectured that at least one other of his altars remains to be found at Auchendavy; for Juno, Fortuna, Felicitas, Salus and the Fates occur with equal regularity. The absence, from the Auchendavy series, of Mercury and the Sulevian Mothers may be due to another cause, as is suggested below.

³ Dessau, ILS 2213 = CIL, vi. 31158.

further. His name shows that his father or grandfather obtained the citizenship from the emperor Marcus Cocceius Nerva; from his service in the *equites singulares* we may assume that he himself came, not from Italy (in the second century still the home of the majority of centurions) or one of the fully romanised provinces, but from one of the frontier provinces which provided the regiment with its drafts. An examination of the inscriptions—for the most part, tombstones of members of the corps who died before the completion of their service, and were buried in the regimental cemetery in Rome—on which the provinces of origin are stated, shows that something like half of the men came from the Danube provinces; it is an even chance, therefore, that he came from that part of the Empire. But a consideration of the regimental deities that he retained, in his dedications at Auchendavy, will be seen to strengthen the probability considerably; for while Mercury and the Sulevian Mothers, typical Rhineland deities, have dropped out, Silvanus, Diana and Apollo (who, as we have seen, have Danubian connections) remain. It is on the Danube, then, and (if we take Diana and Apollo as our guides) on the Lower Danube that we must look for the home of Cocceius Firmus.

V. *The Inscription from Histria.*—For many years now Roumanian archaeologists have been engaged in excavation on the site of Histria, a town on the coast of the Black Sea, in the Dobruja, not far south of the mouth of the Danube; and among their discoveries has been a fine series of inscriptions. One of these¹ is an altar, dated to the 13th June A.D. 169, set up to Jupiter Best and Greatest for the health of the Emperor (as the date shows, Marcus Aurelius) by *vet(erani) et c(ives) R(omani) et Bessi con(sistentes) vic(o) Q(uintionis)*—"ex-soldiers, Roman citizens, and Bessi (a Thracian tribe, a portion of which had long been settled in that part of Lower Moesia²) living in Quintio's ward." Like the others in the series, this altar was set up under the care of two magistrates and a quæstor, and the quæstor's name is Cocceius Firmus. Our previous consideration has pointed to the Lower Danube as the home of the Auchendavy centurion; the date is not unsuitable; and to the identities of place and time we may add, if not identity of rank, at least compatibility. For the term *veterani* includes ex-soldiers of all ranks up to and including the centurionate; and it is not unreasonable to suppose that the Cocceius Firmus who set up the altars at Auchendavy, and found his way into the pages of Pomponius, returned to his home in Lower Moesia on leaving the army, and there in his retirement played

¹ *Année Epigraphique*, 1924, No. 143.

² Cf. *Journal of Roman Studies*, xvii. p. 97 et seq.

the honourable part in civil life that ex-soldiers so often played in the towns of the Roman Empire.

Our prosopographical study may claim at least a high degree of probability for its identification, as referring to one and the same man, of the three scattered records, each of a Cocceius Firmus; but the mere identification is not the main interest of the study. I would rather adopt something like Stuart's view-point, and emphasise the suggestiveness of those records, for the study of Scotland in the Roman period. If I am right, the salt-works to which the slave-woman was sent, and the bandits who captured and sold her, provide an appendix to Dr James Curle's discussion of the discoveries of Roman objects on native sites, and the intercourse between Roman and native on that distant and often unquiet frontier of Empire.¹ They give direct evidence of the trade in that perishable commodity, human beings; and they direct attention to the Roman occupation of the land to the east of the road to Inchtuthil, across the Antonine Vallum. As for Cocceius Firmus himself, the career that we have enucleated emphasises—what the Auchendavy altars have long emphasised—the extent to which the Empire moulded the most diverse elements into the same Roman form: the auxiliary soldier from Lower Moesia became a centurion in the second legion in Britain, and gave a place in his dedications alike to the *Genius* of that land, the gods of the Empire and the army, and his native deities.

¹ *Proc. Soc. Ant. Scot.*, vol. lxxvi. 1931-32, pp. 277-397.

II.

A CINERARY URN FROM KIRKLANDS, KIRKOSWALD, AYRSHIRE. BY ARTHUR J. H. EDWARDS, F.S.A.Scot.,
ASSISTANT KEEPER OF THE NATIONAL MUSEUM OF ANTIQUITIES
OF SCOTLAND.

In March of this year a cinerary urn was accidentally exposed when a field on the farm of Kirklands, in the parish of Kirkoswald, Ayrshire, was being ploughed. News of the find having been conveyed to the Most Hon. the Marquess and Marchioness of Ailsa, they reported the discovery to the Museum, and immediately after I was able to visit the site and get particulars of the unearthing of the vessel. I am greatly indebted to the Marquess and Marchioness for giving me the opportunity of, and assistance in, securing this record. I have also to thank Mr Gray, the farmer, who notified the police authorities of the find, when the fragments of the urn and its contents were removed for safe custody to the Police Station at Maybole, under the care of Sergeant J. Gardner of the Ayrshire Constabulary, who did everything possible to recover all the pieces.

The exact place where the urn was found is about 400 feet above sea-level, and a little less than half a mile north-north-east of the village of Kirkoswald. The vessel had been placed in the ground mouth downwards, and, as the base was only 8 or 10 inches from the surface, it had in all likelihood been struck by the plough on a previous occasion, since only a small portion of the bottom was recovered. This portion sufficed, however, to permit of the restoration of the base, and enabled us to make a complete reconstruction of the vessel at the Museum.

The urn (fig. 1), which is of Bronze Age date, is made of brownish clay, and measures $14\frac{3}{4}$ inches in height. The mouth is not quite circular, being from $13\frac{1}{4}$ inches to $13\frac{3}{4}$ inches in external diameter, the widest part of the body measuring $14\frac{5}{8}$ inches in diameter and the base $4\frac{1}{4}$ inches. The overhanging rim measures $4\frac{1}{4}$ inches in depth and is decorated by parallel lines of impressions of a twisted cord, arranged alternately in horizontal and vertical groups, four groups being horizontal and four vertical. On a slightly raised moulding, $2\frac{5}{8}$ inches below the lower edge of the overhanging rim, is a series of shallow vertical incisions. The remainder of the exterior is plain.

The lip, slightly bevelled downwards towards the interior, is $\frac{7}{8}$ inch in width, and is ornamented with parallel lines of twisted cord decoration. A somewhat unusual feature is the projection of the lip over the interior wall for as much as a quarter of an inch in some parts, but a little less at others.



Fig. 1. Cinerary Urn from Kirklands, Kirkoswald.

The urn has been well fired, and, for a vessel of its size, it is remarkable to find that the wall was in places, about midway down, not more than $\frac{5}{16}$ inch in thickness.

The Society is indebted to Mr J. Don for his kind assistance, and thanks are due to the Most Hon. the Marquess of Ailsa, F.S.A.Scot., for so kindly presenting the urn to the Museum.

The remains found in the urn have been submitted to Professor Low, F.S.A.Scot., Aberdeen University, who has kindly supplied the following report:—

The bones from the urn show the fragmentation characteristic of cremated remains.

Although the bones are fragmentary, many pieces can be identified as belonging to an adult human skeleton—pieces of all the flat bones of the cranium as well as parts of right and left petrous bones, pieces of upper and lower jaws, and five molar, three bicuspid, a canine, and two incisor teeth; pieces of vertebrae and ribs; pieces of pelvis; numerous pieces of upper and lower limb bones, including fragments of bones of hand and foot.

As no duplicate parts are identified it is assumed that the urn contained the cremated remains of one individual, and the appearance of the bones indicate a male.

A SHORT CIST AT THE FARM OF DAILL, PARISH OF KILARROW, ISLAY.

While cutting a track for a waterpipe to the farm at Daill, in the parish of Kilarrow, the workmen accidentally came upon a short cist of the Bronze Age, the cover-stone of which was less than a foot from the surface.

I visited the site on 31st March, shortly after the discovery, and was able to obtain the following particulars of the find.

The cist was situated about 250 yards east of the farm, and consisted of two side-stones and a cover-stone, the ends being built of small irregularly shaped stones. It measured 5 feet in length, 2 feet 2 inches in breadth, and 1 foot 8 inches in depth. The cover-stone measured 3 feet 6 inches in greatest length, 2 feet 8 inches in greatest width, and 4 inches in thickness. The main axis of the cist lay north-north-east and south-south-west. It contained the remains of an inhumed burial, most of the bones of which had decayed. It was ascertained, however, that the head had lain at the south end of the cist.

Professor Low states that the bones are the fragmentary remains of a human adult skeleton.

The skull is represented by a fairly complete left temporal bone and four small pieces of parietal; the limb bones are represented by the middle $\frac{2}{3}$ rds of the shaft of a right humerus; three fragments of the shaft of a right femur and the lower $\frac{3}{4}$ ths of the left femur; the upper $\frac{3}{4}$ ths of the right and left tibia. The shafts of both tibia show well-developed muscular ridges.

The Society is indebted to Mr James MacKillop of Bridgend, Islay, who kindly notified the Museum of the discovery.

III.

EXCAVATION AT THE NESS OF BURGI, SHETLAND.

By Miss CECIL L. MOWBRAY, F.S.A.Scot.

The Ness of Burgi is a small headland situated at the southern end of the main island of Shetland, across the *voe* to the west of Jarlshof and Sumburgh Head. It is formed of sandstone, the beds tilted at an



Fig. 1. Burgi: Natural arch.

angle and forming an inaccessible cliff on the east and south side; on the west it dips less steeply down to the sea. This promontory forms part of a peninsula of some ten acres in extent, fringed by cliffs and only accessible from the mainland by a natural arch of rock (fig. 1). A path has recently been made along the top of the arch, by removing some sharply protruding points of rock and levelling up with gravel. Previously the narrow track could only be recognised by the wear of centuries on the rock, and the actual traversing of it presented such an element of hazard that obviously no large animal could ever have been driven across it. Above this natural barrier, at a narrow part of the

peninsula, the remains of a low rampart extend from cliff to cliff. Beyond this a grass-covered plateau stretches for a distance of a few hundred yards until the fortification is reached.

Immediately in front of the "Burgi," a rampart, with corresponding ditch on either side, is carried across the narrow junction of the headland. The rampart is formed of earth and stones, and appears to have been revetted on the inner side with a roughly built wall about 3 feet high, banked with a compacted mass of clay intermingled with stones.



Fig. 2. Burgi: Approach.

A passage leads through the rampart, flanked at its commencement by two boulders and lined with stones on each side for a distance of about 8 feet (fig. 2). On the scarp of the inner ditch the natural rock rises steeply to a height of about 12 feet, and on the summit of this is built the fort, or "Burgi." This consists of a rectangular building with a roughly levelled platform in front, 4 feet wide, running approximately north-east and south-west. It is in a ruinous condition at the south-west end and its original length cannot be ascertained. At present it is about 74 feet in length and from 21 feet to 18 feet in breadth.

A passage, which still retains the three outer lintel stones in position, and which measures 4 feet in height and $3\frac{1}{2}$ feet in width for the first

5 feet, but decreases in width to 4 feet for the remaining 16 feet, leads through the building, near its centre, into a sort of natural courtyard, about 20 yards square, formed by the cliffs which surround a level stretch of turf. Outside the entrance three slabs of stone resembled drain covers. They were, however, more probably paving-stones, or even lintels fallen from above. Some 5 feet from the entrance there had been a door, evidenced by a doorstep, formed by a narrow upright slab, still *in situ*, on one side, and by two bar-holes, passing through the



Fig. 3. Burgi: Doorway.

thickness of the walls into a chamber on either side. There were no traces of either bar-holes or doorstops at the exit. Some of the lintels which had evidently covered the passage were lying within it, tilted up against the side. The earth in the passage was very damp, and there was much decayed vegetable and animal matter mixed up with it, as well as many bones, including those of rabbits, sheep, oxen, seal, and fish, as well as limpets and some whale's remains. There was also a fragment of a sandstone vessel, half an inch in thickness and about 11 inches in diameter.

There are two main chambers; the east chamber opening off the central passage, and the west chamber entered directly from the back of the building. The narrow tunnel-like entry to the east chamber,

6 feet long, 2 feet wide, and $2\frac{1}{2}$ feet in height, and covered by four lintels, opens off the passage immediately behind the front doorway. The room is 18 feet long, but only 7 feet wide. The end is curved, and the walls, now standing to a height of about 6 feet, are slightly corbelled towards the top (fig. 4). It seems probable that they would have sloped gradually inwards until they were close enough to be spanned by lintels, a number of which were found lying within the room. In this chamber were found many fragments of bone, chiefly of sheep, a few



Fig. 4. Burgi: East chamber.

small pieces of burnt bone, a number of fragments of pottery, and some burnt peat.

The west chamber is larger, about 18 feet by 10 feet, and is rather curiously shaped, the walls adjoining the passage and the front of the building being straight, while the other two join in a curve. The entrance, from the back of the building, is placed 6 feet from the inner end of the entrance passage, 2 feet wide, just over 2 feet high, and 4 feet long. It is covered by three lintels, and above these the walls on either side rise for another 18 inches as if to support a further set of lintels, thus affording space for a window, as is occasionally found in brochs. Two hearths were found in this room, indicating two periods of occupation. They were both rectangular slabs of about the same size, much

marked and split by heat and covered with peat ash. They were at the curved side of the chamber, one at a level 6 inches above the other, but immediately over it. Possibly there was some outlet for smoke in the roof at this spot. At the occupation levels in this room the soil was dark and peaty and filled with a mass of bones of many kinds, and with limpets. There were also a larger number of fragments of pottery than had been found in the east chamber. At the entrance, at the lower occupation level, were a number of cobble-stones set on end.

Beyond this chamber, farther to the west, are remains of another smaller chamber, but so much of it has been destroyed by the storms of centuries that few details of its construction now survive, and there is no indication of a doorway.

The material used for building is unhewn blocks of sandstone, some of them as large as 4 feet square. They may have been brought from a rocky promontory only a few hundred yards away. The walls are roughly built and vary in thickness from 4 to 10 feet. They are erected directly on the natural rock. There is no trace of a stairway, and from the amount of stone on the site it does not seem probable that there was a second storey. It is remarkable that, though the building was so strongly protected in front by the ditches and rampart, and the main entrance was furnished with bar-holes, the inner ditch, which extended on the western side right to the edge of the cliff, terminated at the eastern end about 10 feet from the edge on the other side. As it stands, there is nothing to prevent easy access to the undefended doorways at the back. If there was, as presumably there must have been, a flanking wall at this side, it was not bonded into the building. The only trace of such a wall is a single stone, sunk vertically into the ground and jutting out at right angles from the end of the building. Possibly the wall, if such existed, was of lighter construction, and has since been washed away.

The "Burgi," which gives its name to the headland, is of a type which appears to be peculiar to Shetland. From the occurrence of an out-building, or forework of cognate construction, at the broch of Clickamin, it may be considered to belong to the period of the brochs. A similar construction has been noted by the Royal Commission on Ancient Monuments on an island in the Loch of Huxter, Whalsay. The type will be described by the Commission, whose inventory dealing with Orkney and Shetland will shortly be published.

POTTERY.

There were several varieties of pottery found. One was a black ware, polished on the exterior, of close-grained homogeneous material, hard in texture, with a sooty encrustation on the outside. It is curious that two pieces of this pottery which fitted together were found in different rooms. Another type was a coarse red ware, a few fragments of which were found in both chambers, evidently portions of cooking pots, with a black encrustation in the interior. There were also a few



Fig. 5. Burgi: Fragment of pot.

fragments of a similar but finer ware, red on the exterior. From the east chamber came about a third of a vessel of thick, coarse, black pottery, rudely fashioned by hand. It is $3\frac{1}{2}$ inches in height, with a diameter of $7\frac{1}{2}$ inches. There is a constriction under the recurved rim, which is low and irregularly finished at the edge. The paste used is very coarse and of a close consistency, with numerous small stones in its composition. There is a sooty encrustation on the upper half of the exterior (fig. 5).

There were no other relics found during the excavation, but in the *Proceedings* of 1882-3, vol. xvii., two circular carved stone discs are described as having been found in the ruins of a broch at Seatness, which must have meant the Ness of Burgi, as it is the only broch-like ruin on Seatness (pp. 296 and 297, figs. 1 and 2).

In conclusion I wish to acknowledge my indebtedness to H.M. Office of Works for allowing me to conduct this excavation on behalf of the Society of Antiquaries of Scotland, for the assistance that was furnished by the Department, and for the arrangements made for my comfort. I also wish to acknowledge the help of Mr A. O. Curle, whose experience was invaluable to me.

IV.

A ROMAN "VOTIVE LANTERN" FROM NEWSTEAD.

By A. W. G. LOWTHER, F.S.A.

An interesting class of objects of the Roman period, about which much is still to be learnt, is represented among the material found by Mr Curle at Newstead, and which I had the pleasure of seeing during a recent visit to the National Museum. The Newstead example (fig. 2) is represented by a fragment, but sufficient remains to show its original form and that it conforms to type in every way.

These objects, best described perhaps as "Votive Lanterns," have a wide distribution, extending in fact from Budapest to Scotland.

I have discussed them in a brief note in the *Surrey Archaeological Collections* (vol. xlii.), since when a few more examples have come to light, including the present fragment.

In *Bonner Jahrbücher*, No. 118, Siegfried Loescheke has written on some Continental examples, one of which, found at Xanten in 1821, throws considerable light on their "votive" aspect.

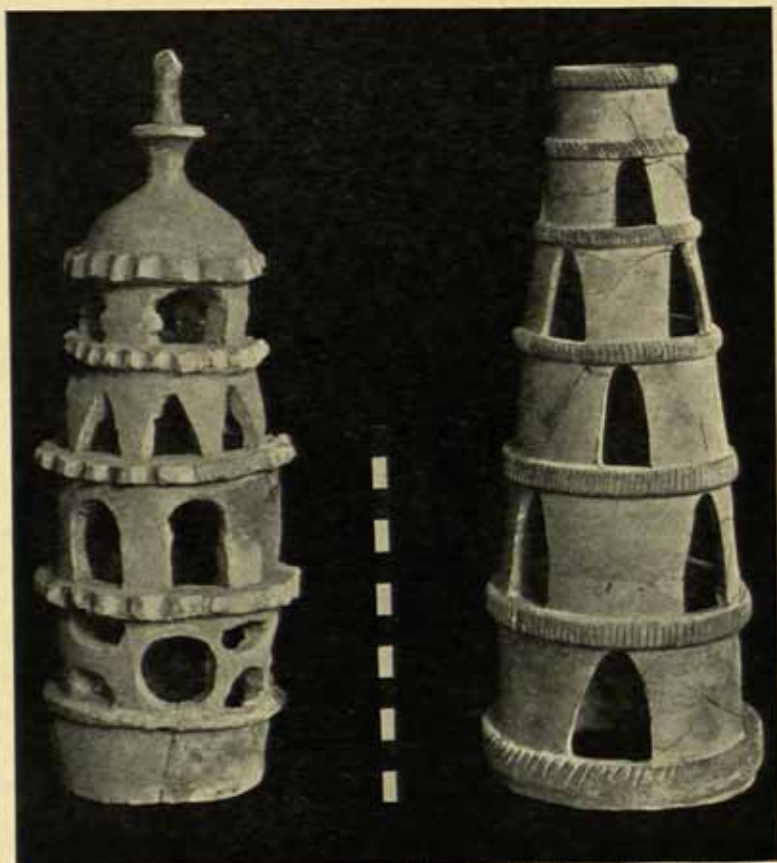
I shall begin by describing their general characteristics.

They are hollow, cylindrical¹ objects, made generally of red brick, but also, sometimes, of thick pottery. They average 2 feet in height, and have a basal diameter of about 9 inches. Usually, they have a domed top, ending in an ornamental spike (reminiscent of the modern spiked helmet), but they are also sometimes open at the top, as was one found at Verulamium in 1933. The outer surface is divided into horizontal zones by projecting bands, the latter being ordinarily about 3 inches apart, and are either plain or decorated. The ornament consists either of "frilling," done with thumb and forefinger, or else of diagonal slashing, formed with a knife.

The intervening zones are perforated with a series of openings which may vary considerably in shape, but are most often triangular or semi-elliptical.

¹ The three examples from Hungary are square, but similar in other respects.

The Newstead fragment retains part of two zones and the intervening raised band. The upper zone has the lower part of several triangular openings, while the lower zone retains only the upper angles of a row of



(By courtesy of the Surrey Archaeological Society.)

Fig. 1. Votive Lanterns.

similar openings. The intermediate raised band is ornamented with roughly executed diagonal slashing.

It is made of red brick, wheel turned, the bands being applied independently, and the openings cut, while the clay was still soft, before firing in a kiln.

Now as regards the evidence for a votive significance attaching to these objects and their probable date:

The Xanten example, a complete specimen (now, unfortunately, lost), was found standing upright over what was apparently a cremation burial (Loeschke, *op. cit.*). It had some forty small pots, with pointed bases, stuck in the ground and grouped in rings round its base. All these small pots had traces of burning inside them, suggesting that they had been used as lamps. The lantern itself bore no signs of smoke-blackening on its inner surface. Presumably the overlying soil in which the group was buried had originally been in the form of a raised mound or barrow.

The specimen found at Verulamium (fig. 1, right) was lying on the

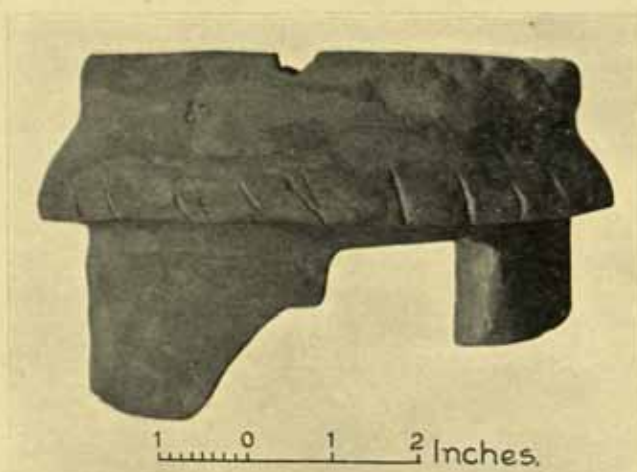


Fig. 2. Fragment of Votive Lantern from Newstead.

second-century gravel floor of the open inner courtyard of the Temple in INSULA VII. It was close beside the base of a brick-built altar of this period, and with it were fragments of several "incense-burners" of the usual tazza form.

It is made of pale buff-coloured pottery, carefully formed, the slashing on the raised bands being neatly executed.

At Ashted, in Surrey, buildings connected with a second-century brickworks, which I excavated during 1926-8, produced the fragments of several of these objects (*S.A.C.*, vols. xxxviii. and xlii.). They were all made of red brick, and the most elaborate had rosette- or cartwheel-shaped openings. The intervening bands were frilled and the tops were furnished with spikes. A restored example is shown on fig. 1, left.

I have not ascertained whether the Newstead fragment was found in

any stratified level of a dated period, nor in which part of the site it was found. It would be interesting to know whether it can be linked definitely with any one of the superimposed forts, or was associated with any particular structure as, for instance, the Sacellum of the Principia.

A very interesting fragment of another votive lantern in the National Museum (fig. 3), has been identified, and brought to my notice, by Dr Callander. It was found in the Roman Fort at Camelon during the



Fig. 3. Fragment of Votive Lantern from Camelon. (1.)

excavation carried out there by the Society in 1900. This piece consists of part of the domed top and the upper frilled flange. It is made of light red brick ware and measures $\frac{5}{8}$ inch in thickness, the external diameter of the flange having been about 6 inches. In making the flange the clay has been folded back towards the inside, suggesting that (as appears to have been the case with the Ashted examples) the top was made separately from the remainder of the object, and united, while the clay was still wet, before being dried or baked. It has the word 'FECIT' incised on the dome above the flange.

Votive Lanterns have been found in Britain at the following places:—

1. *Ashted, Surrey*. Roman brickworks (*S.A.C., op. cit.*).
2. *Leigh Sinton, Worcestershire*. Roman brickworks (*Ant. Journ.*, vol. v. p. 287).

3. *Caerleon, Monmouthshire*. Inside the fortress (*Report on Excavations*, vol. ii., fig. 14).
4. *Cirencester, Gloucestershire*. Unpublished example in a private collection.
5. *York*. Two examples in the Museum.
6. *Verulamium, Hertfordshire*. Temple, INSULA VII (*Report on Excavations*, pp. 119, 190-1, and pl. lviii.).
7. *London*. Part of the spike, with frilled ornamentation, from one example in the collection at the Guildhall Museum (*Ant. Journ.*, vol. xvi., p. 204).
8. *Newstead*, and 9. *Camelon*. The fragments, described here, now in the National Museum of Antiquities.

Loeschcke draws a distinction between the square, tower-like objects of this group, which are found in the eastern frontier provinces of the Roman Empire, and the cylindrical type of its western counterpart. For the former, he attempts to find a source of origin in the terracotta lamps (generally shaped to represent buildings) which have been found in Romano-Egyptian tombs. The latter, the cylindrical type of the west, he derives from an early Roman cylindrical form of lantern. He also suggests an earlier dating for the cylindrical, as against the square, type.

So far, the evidence of the British finds shows that the cylindrical form prevailed over here; that Loeschcke was probably correct in attributing a "votive" significance to them, and that they were being manufactured and used here during the first half of the second century and possibly earlier.

There may be other examples of these objects remaining unnoticed among collections from Roman sites throughout the country; possibly, also, from Continental sites. It is hoped that this note may assist in their identification, and cause them to be brought to light.

MONDAY, 11th May 1936.

SIR GEORGE MACDONALD, K.C.B., President,
in the Chair.

The Chairman intimated that M. F. A. Schaeffer had agreed to deliver the course of Rhind Lectures for 1938, his subject being the Excavations at Ras Shamra, Syria.

A Ballot having been taken, the following were elected Fellows:—

KENNETH CAIRNIE FERGUSON, 2 Clarendon Crescent, Edinburgh 4.

LANGTON HALDANE-ROBERTSON, Consul of Brazil, Kingston, Jamaica,
British West Indies.

The following Donations to the Museum were intimated, and thanks voted to the Donors:—

(1) By Rev. R. S. G. ANDERSON, B.D., F.S.A.Scot.

Pair of Wafering Irons from an old mill north of Drumore, Wigtownshire.

(2) By W. DOUGLAS SIMPSON, M.A., D.Litt., F.S.A.Scot.

Small Stone Axe, measuring $1\frac{11}{16}$ inch in length, $1\frac{5}{8}$ inch across the cutting edge, and $\frac{13}{32}$ inch in thickness, from Parkhill, Lumphanan, Aberdeenshire.

(3) By WALTER G. GRANT, F.S.A.Scot.

Flint Implements consisting of eight Scrapers, the largest measuring $1\frac{1}{4}$ inch by $\frac{15}{16}$ inch, and the others from $\frac{15}{16}$ inch by $\frac{3}{4}$ inch to $\frac{9}{16}$ inch by $\frac{7}{16}$ inch, from Westness, Rousay, Orkney; fourteen Scrapers, measuring from $1\frac{1}{4}$ inch by $1\frac{5}{16}$ inch to $\frac{5}{8}$ inch by $\frac{5}{8}$ inch; and a side Scraper, measuring $1\frac{1}{2}$ inch long, from Nearhouse, Rousay; twenty-two Scrapers and three worked pieces, measuring from $1\frac{1}{4}$ inch by $1\frac{1}{8}$ inch to $\frac{9}{16}$ inch by $\frac{1}{2}$ inch, and part of an Object of light coloured Quartz, highly polished near one edge, found near the Cairn of Rinyo, Bigland, Rousay.

Doubled-edged small-toothed Comb of Bone, incomplete, now measuring $2\frac{1}{8}$ inches by $1\frac{3}{8}$ inch, and three fragments of hand-made pottery, two being rim portions, from a site on the Muckle Skerry, Pentland

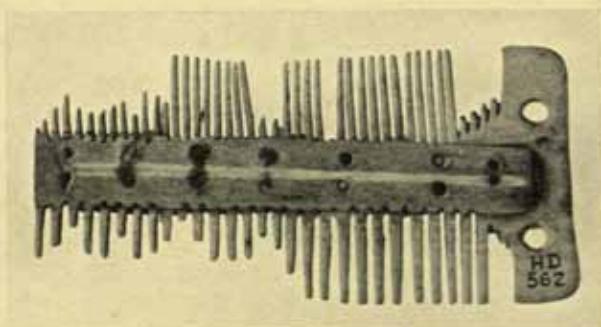


Fig. 1. Hair-comb of Bone from the Pentland Skerries. (†).

Firth. The comb is formed of thin narrow plates clasped together by a long narrow plate on each side fixed by bronze rivets set in pairs (fig. 1).

(4) By the Most Hon. THE MARQUESS OF AILSA, F.S.A.Scot.

Cinerary Urn found on the farm of Kirklands, Kirkoswald, Ayrshire. (See previous Communication by A. J. H. Edwards, F.S.A.Scot.)

(5) By THOMAS YULE, F.S.A.Scot., Vice-President.

Double Cup of Silver; the bowls, connected with a baluster-shaped stem, are of a size suitable to contain a hen's and a duck's egg; height 4 inches, weight 5 oz. 4 dwt., maker's mark T. & Co., Inverness, c. 1790. Both bowls are engraved, and turned to represent staves with wooden hoops.

(6) By GEORGE VEITCH, F.S.A.Scot.

Silver Spoon with trifid stem and a long rat-tail on the back of the bowl, bearing the initials C. T. C., and the maker's mark J B. (J. Borthwick), Edinburgh, c. 1690.

(7) By ALEXANDER GIBSON, 17 Belgrave Crescent, Edinburgh.

Five Clacktonian Flint Flakes, four from Barnham, East Anglia, and one from Three Hills Camp, from glacial old wash.

(8) By CHARLES E. WHITELAW, F.R.I.A.S., F.S.A.Scot.

Four Sailmaker's Tools: (1) Bone pin-like Object called a "Fid," measuring 7 inches long, principally used for opening the strands of a rope for splicing (fig. 2, No. 1); (2) a "Serving Board" or hammer-shaped Object of Cetacean Bone, the head being convex on one face and

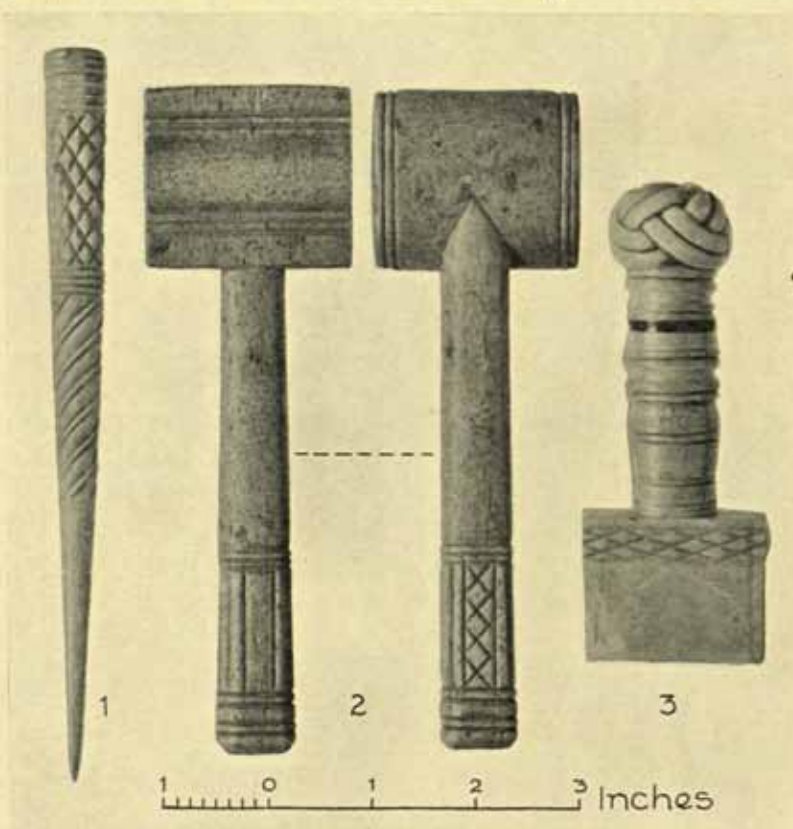


Fig. 2. Sailmaker's Tools of Bone.

1, A Fid. 2, A Serving Board. 3, A Rubber.

concave on the other, for winding marline on ropes, measuring $6\frac{5}{16}$ inches long, the head being 2 inches broad and $1\frac{3}{4}$ inch deep (fig. 2, No. 2); (3) a "Rubber" or tool, with the lower end wedge-shaped for flattening out seams and hems on sails, of Morse Ivory, measuring $4\frac{1}{2}$ inches in length (fig. 2, No. 3); (4) and one of Wood, measuring $4\frac{7}{16}$ inches in length.

Pair of Spurs for cock-fighting, of Leather and Horn.

Small Leather Tinder-pouch containing a fleerish, a piece of flint, and two pieces of soft leather with which to grasp the flint when striking it.

Lady's Keeking-glass, of flat, oval shape, measuring $3\frac{3}{8}$ inches by $2\frac{3}{16}$ inches by $\frac{9}{16}$ inch. The case is covered with red morocco leather.

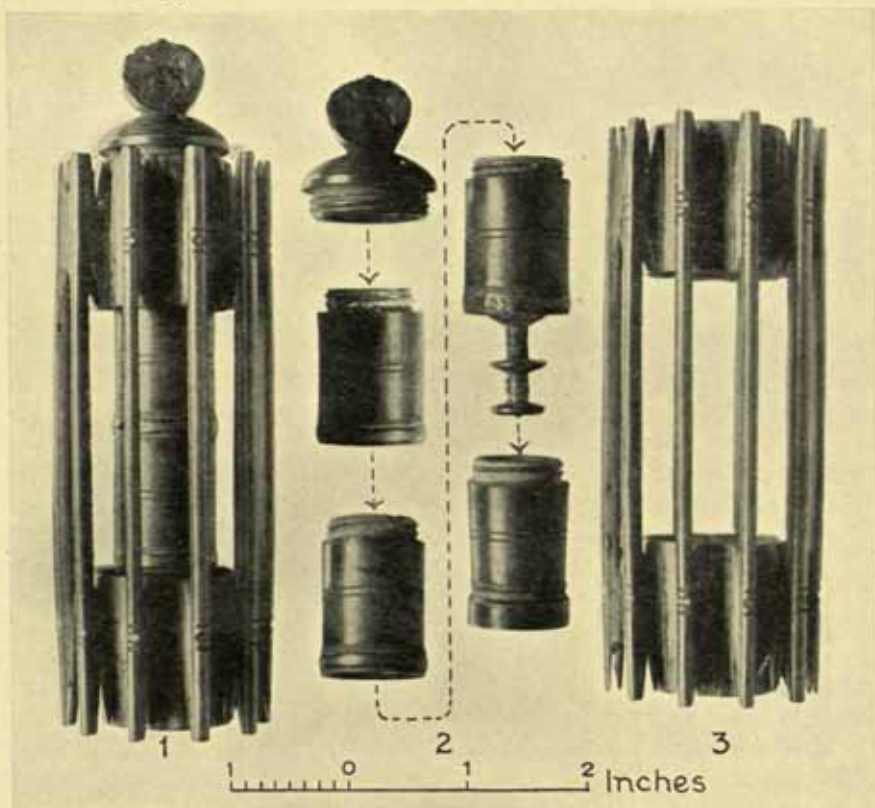


Fig. 3. Silk Container and Winder:
(1) Pieces screwed together, (2) Separate parts.

It is hinged in the centre of one side, and has a hook and loop catch on the other. The glass is sunk within one half, and in the opposite one is a pad covered with flowered blue silk. Probably early eighteenth century.

Silk-container and Winder of box-wood (fig. 3), with its leather case.

Two Perpetual Calendars in wooden frames: One oblong with cut corners and the other circular, each with three tables printed on paper; invented by John Gillespie, and made by Gavin & Son, Engravers, 13 Parliament Square, Edinburgh, about 1820.

All from Kirkcaldy.

(9) By J. C. MOWAT, Eshaness, Shetland.

H-shaped Implement of Bone, measuring $4\frac{5}{16}$ inches in length. It is of flattened oval shape and tubular; a deep hollow is cut in both ends so as to leave two sharp points in each. Found in Braewick Loch, Eshaness, Shetland, when it was drained by a storm bursting the shingly dam between it and the sea.

(10) By THE HONOURABLE COMPANY OF EDINBURGH GOLFERS, Muirfield, Gullane, through H. J. YOUNGER, F.S.A.Scot.

Objects found in a kitchen-midden at Muirfield, Gullane, East Lothian. (See previous Communication by H. J. Younger, F.S.A.Scot.)

(11) By Colonel F. R. T. T. GASCOIGNE of Craignish.

Food-vessel Urn, Stone Axe, and a quantity of human Hair, found in a short Cist near Craignish Castle, Argyll, and part of another Food-vessel found in an adjoining cist.

Professor V. G. Childe, F.S.A.Scot., has furnished the following note on the discovery of these relics:—

Mr Colin Kennedy, an employee of Craignish estate, was digging gravel, when he came upon three cists. This gravel pit has been dug in the shingle of the 25-foot beach, just above the road on the south shore of a small cove opening into Loch Craignish, at Bàgh Dùn Mhuilig (O.S. Map, Argyll 138).

The first two cists had been destroyed, but the third was still *in situ* on the face of the excavation when I arrived on 9th April, but one of the side stones had fallen out and was lying at the foot of the working face (fig. 4). In shape it is a parallelogram, measuring 4 feet 8 inches by 2 feet 4 inches by 3 inches, but too heavy to move. There was no sign of a cairn above the cist, the capstone of which lies about 2 feet 6 inches below the present ground level. A band of grey clay is visible along the quarry face at the level of the capstone. The cist was composed of six slabs. The end slabs measure on the inside 2 feet by 1 foot 8 inches by 3 inches and 2 feet 3 inches by 1 foot 5 inches by 4 inches, but small horizontal slabs have been placed under both the uprights as wedgers. The rear slab measures 4 feet by 1 foot 8 inches on the inside. The floor of the cist is formed by a rough slab fitting closely against the lateral uprights and the wedgers under the end stones. It measures 4 feet by 1 foot 8 inches by 8 inches. The capstone resting upon the uprights projects beyond them in all directions. Its width is uncertain, but it is at least 4 feet 11 inches long and 6 inches thick, and projects 2 feet 10 inches from the rear lateral slab and some way under the gravel beyond its upper edges. I observed no carvings on the exposed surfaces.

The cist contained a food-vessel (fig. 5) and a stone axe (fig. 6).



Fig. 4. Short Cist at Craignish, Argyll.



Fig. 5. Food-vessel from Craignish, Argyll.

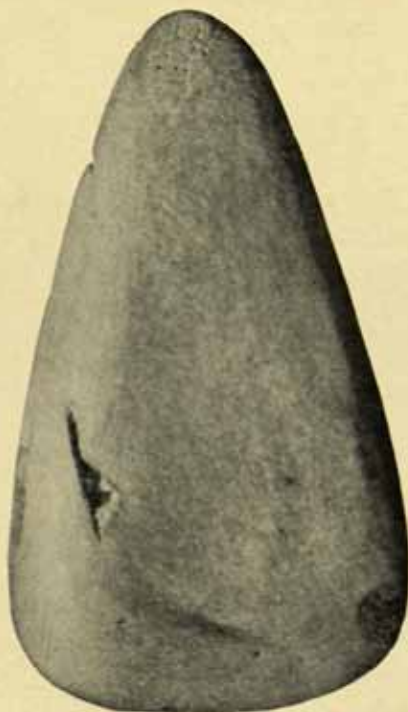


Fig. 6. Stone Axe found in Cist at Craignish. (I.)

The urn is of dark brown ware and measures $6\frac{1}{2}$ inches in height, $6\frac{1}{8}$ inches in diameter at the mouth, $6\frac{3}{8}$ inches at the shoulder, and 3 inches across the base. It is constricted just under the rim and has two slight cordons below. The upper part of the wall is decorated by transverse lines, and the lower part by reversed hatched triangles, formed by the impressions of a twisted cord. The top of the rim, which is bevelled sharply towards the interior, is decorated by similar markings. Round the outer edge of the lip is a row of triangular impressions.

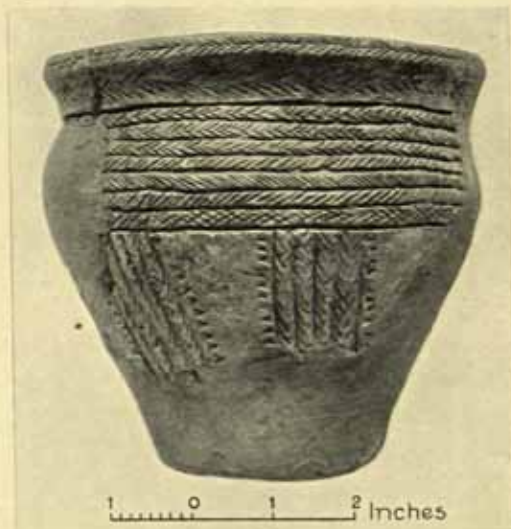


Fig. 7. Food-vessel from Craignish.

The axe measures $3\frac{1}{2}$ inches in length, $2\frac{1}{8}$ inches across the cutting edge, and $\frac{3}{4}$ inch in thickness. Kennedy stated that he found the urn inverted. There were also several much decayed adult human bones, probably male, including teeth, femurs, and a small fragment of skull, as well as a considerable quantity of human hair.

The urn from one of the lost cists is also a food-vessel, but it is incomplete, less than one-third having been recovered. It has, however, been possible to restore it in the Museum (fig. 7). It is of fine hard brown ware and has measured about $5\frac{1}{2}$ inches in height, $5\frac{3}{4}$ inches across the mouth, and $2\frac{3}{4}$ inches across the base. The exterior of the rim, the neck, and upper part of the body bear eight narrow bands of incised ornamentation in the form of oblique lines, herring-bone and lattice designs. Below there have been six or seven vertical panels divided into four and five ribs by deeply incised lines, and bordered on both sides by impressed triangles; the ribs bear incised chevrons. The rim is 1 inch broad. It curves convexly downwards towards the inside and bears five rows of triangular punctuations between single marginal lines.

(12) By ADAM S. DAGG, Newmills, Lauder, Berwickshire.

Small Bronze Spear-head with small, protected loops on the socket, measuring $4\frac{7}{8}$ inches in length, found on the farm of Newmills.

The following Purchases for the Museum were intimated:—

Six Scottish Coins from the Cochran-Patrick Sale:

(1) Alexander II. Sterling. Sale, No. 138.

(2) Alexander III. Penny, presumably Lanark. (*See Burns*, p. 154, and fig. 110c.) Sale, No. 151.

(3) Alexander III. Penny of Roxburgh Mint. (Not in *Burns*.) Sale, No. 152.

(4) Alexander III. Penny of Berwick. (*See Burns*, p. 125, 9b, fig. 84b.) Sale, No. 163.

(5) John Balliol Halfpenny. Obv. Sale, No. 175.

(6) James I. Penny of Aberdeen. (*Burns*, 1a, fig. 422a, p. 48.) Sale, No. 207.

The following Donations to the Library were intimated, and thanks voted to the Donors:—

(1) By HIS MAJESTY'S GOVERNMENT.

Calendar of State Papers. Elizabeth. Vol. xxii. July–December 1588. London, 1936.

(2) By THE FIRST COMMISSIONER OF HIS MAJESTY'S WORKS.

Ancient Monuments of Great Britain. List of Monuments prepared by the Commissioners of Works. (To 31st December 1935.) London, 1936.

(3) By CHARLES E. WHITELAW, F.S.A.Scot., the Author.

Notes on Swords with Signed Basket Hilts by Glasgow and Stirling Makers. (Published in *Transactions of the Glasgow Archaeological Society*, New Series, vol. viii., part iv. Supplement, 1934.)

(4) By THE BRITISH BROADCASTING CORPORATION.

B.B.C. Annual. 1936.

(5) By T. HARVEY THOMSON, M.D., D.P.H., Drumore House, Campbeltown.

The Ancient Churches and Chapels of Kintyre. (Reprinted from *The Campbeltown Courier*.)

(6) By THE CURATOR.

Bulletin of the Russell-Cotes Art Gallery and Museum, Bournemouth.
Vol. xv. No. 1. March 1936.

(7) By THE CLAN MACLEOD SOCIETY.

The MacLeods: Their History and Traditions. By Rev. Canon
R. C. MacLeod of MacLeod. Edinburgh, 1929.

The Clan MacLeod Magazine. First Number. 1st February 1935.

The following Purchases for the Library were intimated:—

The Ancient Burial-Mounds of England. By L. V. Grinsell. London,
1936.

Story of the Bagpipe. By W. H. Grattan Flood, Mus.Doc. London,
n.d.

The following Communications were read:—

I.

THE ROMAN FORT AT FENDOCH IN GLENALMOND:
A PRELIMINARY NOTE. By I. A. RICHMOND, M.A.,
F.S.A.Scot., AND JAMES McINTYRE.

(a) INTRODUCTORY NOTE.

The Roman site at Fendoch was not unknown to an older generation, though to this one it comes as a new discovery. It was first mentioned in print by the minister of Monzie, who was responsible for the section dealing with the parish in the *Statistical Account of Scotland* (1795). "About two miles east from the church" (of Monzie), he wrote,¹ "at the country called Findochs, there is a large camp. It is situated opposite to the only proper passage through the hills found in them, for about 40 miles: it stands on a high ground defended by waters on two sides, and a moss with steep ground on the others. The trenches are still entire, and in some places 6 feet deep. It is about 180 paces in length, and 80 paces in breadth, and was surrounded by a strong earthen wall, part of which still remains, and is near 12 feet

¹ *Op. cit.*, vol. xv. p. 256.

thick." This account is quoted by Chalmers, almost word for word:¹ but something was added to it by him in another connection. In dealing with the Roman roads of Scotland he quotes a letter on "vicinal ways" from Colonel Shand, who observed that "there is one way of this kind twelve feet wide, which I have traced, and which is in some places very distinct, from the confluence of the Powaffray-water with the river Earn, near Strageth, where the great Roman road crosses the Earn, through the country northward to the plantations of Monzie, where there is the vestige of a strong post in Roman style, from which post this vicinal way turned to the right; and I was told by some of the country people that it may still be seen in a few places running on past Connachan to the Roman camp at East Findoch. This camp contains, as usual, about 90 acres Scots measure, and is advantageously situated at the mouth of Glenalmond."² The letter is dated 22nd December 1801. But Sir George Macdonald tells us that in a paper read to a Perthshire Society thirteen years before (26th February 1788), the MS. of which is now in the Perth Museum, Shand had referred to the forts "at Dialgen-Ross on the Erne, and Fiente-Ach in the opening of the Defile of Glen-Almond" as Roman, unfortunately without giving any detailed description. Dealginross was, of course, known to Gordon, but it is more than likely that Shand was the discoverer of Fendoch.

Before dealing with the passages we have quoted, it will be well to note that the minister of Monzie also observed, on a narrower plateau lying to the north of the site which he believed Roman, a native work, irregular in plan. Further, the croft of East Findoch stood upon the Roman site—its ruins are visible to-day; and Stobie's *Map of Perthshire* (1811), marking clearly both sites, shows that the croft had already obliterated the west end of the supposedly Roman earthwork. In fact, the clear indications noted in the older *Statistical Account* were steadily disappearing under cultivation. This explains why, in the *New Statistical Account*, no emphasis was laid upon the site known to the minister and the colonel, though a Roman *denarius* was added to the record. Meanwhile, too, another discovery had taken place which drew all the attention of a relic-loving age to the native site. In 1834, men building a stone wall (now ruinous) across the irregular enclosure, discovered three bronze cauldrons full of objects.³ These antiquities were promptly dispersed, and have never been traced since. No doubt

¹ *Caled. Rom.*, vol. i. p. 173.

² *Ibid.*, p. 146. For some account of Shand and his activities, see *Proceedings*, vol. vii. (1800), pp. 26 ff.

³ *New Statistical Account*, Perth, vol. x. p. 262.

they formed a group like the Carlingwark Loch hoard, of the late Iron Age. The spectacular nature of the discovery led, not unnaturally, to the complete eclipse of the second site. On the Ordnance Map the name of Roman camp was transferred to the northern plateau, and as these earthworks too became indistinct—they are now scarcely visible to an untrained eye—inquirers were led still farther afield. Dr Christison planned only some crofts, situated still farther north on the river-terrace of the Almond, and very rightly impugned their Roman nature.¹

Turning now to the present day, the writers of this paper, making a tour of Roman Scotland in 1935, happened upon the account of Fendoch in the *New Statistical Account*, put at their disposal in the public library of Perth. They were attracted to the site less by the finding of the cauldrons, than by the record of the Roman coin noted above. But Fendoch is an obscure place to folk from south of the Cheviot, and we were to learn how to find it through an after-dinner conversation with Mrs H. G. Donald, a daughter of Dr Temple of Comrie, at that moment re-visiting her home from Bishop Auckland. Only then did the significance of the position dawn upon us, as upon earlier observers, whose works we did not then know. It seemed to us that, if the Romans had pushed out forts to block such positions as Comrie, the mouth of the more significant Sma' Glen would not have escaped the attention of their tacticians.

On reaching the site, in the early evening, it was immediately apparent that the northern plateau, by this time established as the traditional site, could not have held a Roman fort: it is too irregular and narrow. Our eyes then wandered southwards, to the tableland of East Fendoch, where the low sun was accentuating the even platform of the second earthwork. A rapid inspection showed the spread remains of the rampart, with rounded angles, and, at the south-east and south-west angles, clear traces of a ditch. The position was a typically Roman choice, reminding us very strongly of Brough-by-Bainbridge, the Flavian site in Wensleydale; and there was little doubt in our minds that we had found a Roman site.

The next step was to test the field observations by some trial trenches. A call upon the tenant of the land, Captain Ian Macrae of Fendoch (the old Fendoch West), assured us of a ready welcome, and our application to Captain Drummond-Moray, of Abercairney, the proprietor, was equally kindly received. Our Society made a grant of twenty pounds towards the work, of which just under ten were actually used in trenching conducted by the first writer after Easter, 1936. Eleven

¹ *Early Fortifications in Scotland*, p. 921.

days' digging was sufficient to gain a fair idea of the possibilities of the site.

(b) DESCRIPTION OF THE SITE.

The site is a flat-topped rather narrow moraine of gravel and soft sands at the mouth of the Sma' Glen, the last of a series which runs along the bed of the broad, dry valley in which the Fendoch Burn meanders. It is just large enough to contain the Roman site, whose dimensions, 598 feet by 332 feet, are adjusted to fit it. The Fendoch Burn runs in a steep gorge to the south: on the north a nameless streamlet drains a bog to the west: both streams unite in low bogland to the east, and join the Almond above Buchanty. The main outlook is to the north, up the Glen: but from a tower at the fort it would be possible to see considerably further to east and west than now. The southward vista is completely blocked, and indeed dominated, by the great hill of Stroness. Access to the site is difficult. From the west, it can be reached by a neck of the moraine skirting the west bog: and this line of moraines has in fact been used to carry an old road. The same line seems to have been continued eastwards through the bogland and across the Almond. Neither northwards nor southwards are communications invited.

(c) THE DEFENCES.

The defences consist of a turf rampart, over 20¹ feet thick, and a single ditch, 13 feet wide and about 6 feet deep, separated from the rampart by a 5-foot berm. On the east, where an irregular extension of the plateau might offer a footing to an enemy, there are two ditches of similar dimensions, about 6 feet apart. Elsewhere, the ditch occupies the very edge of the plateau: indeed, it is clear that a long portion of the southward ditch has at some time gathered too much water and slipped away. There was no opportunity to see whether there had been angle towers or interval towers, and the only gateway-position identified was that of the east gate, in the centre of the east side. A corresponding gateway may be inferred at the west. If there were north or south gateways, the visible remains of unbroken rampart suggest that they must have lain west of the short axis, but their existence remains unproven. The existence of the east gateway was proved by finding a cobbled road at the central point on the line of the rampart.

That the turf rampart had not been the first defence of the site was proved by finding, at two points below it, towards the west end of the

¹ If the minister's "12," in the *Statistical Account* (*loc. cit.*), were a misprint for "21," it would be in harmony with the actual remains.

south side, a deep palisade trench, filled with fragments of wood, upon which a report is given below by Dr A. Raistrick, of Armstrong College, Newcastle-upon-Tyne. This trench, after lying derelict for a while, had been purposely filled up before the rampart was made. It is reminiscent of the early trenches at Ardoch, Mumrills, and Croy Hill, and doubtless belongs to the earliest occupation of the site, before a permanent work had been placed there. The fact that the trench did not appear either in our sections on the west side or at the east end of the south side suggests, however, that the earlier work did not have the same plan as the later. This is a problem which further application of the spade may be expected to solve.

(d) INTERNAL BUILDINGS.

Examination of the internal buildings was confined to the south-east division of the fort. Two cooking-ovens, however, were noted, just north of the south-east and south-west angles respectively, at the back of the rampart. They were much ruined, and no attempt was made to uncover them completely; but they had been well used, and the heavily burnt stones were set in a prepared mass of puddled clay. Much ash bestrewed the ground in front of them.

The buildings had been of timber. Cross-trenching rapidly picked up a sleeper-beam trench, well defined in the gravel soil, which was traced for some 120 feet. It had held a beam at least 1 foot square, and thus represented a substantial structure. Towards the west end, however, it was noted that the sleeper track had been cut through in three places by post-holes, which impinged more and more upon its line as this was followed westward. Their irregularity in relation to the beam trench precludes the idea that they belong to the same period as the trench; and it would seem that they belong to a later reconstruction, on almost the same lines. This agrees with another feature of the sleeper trench which was not empty, but well filled with occupation-earth and pottery rather than silt; a state of affairs which is comprehensible if sleeper beams had been withdrawn and the trench filled up with scattered rubbish in process of a reconstruction. The pottery itself was mostly coarse ware, fragments of *amphoræ* and jars, although a fine piece of Samian ware, of Dragendorff's shape 29, was welcome evidence for a Flavian date; and the amount recovered was suggestive of a heavy occupation. The sleeper trench described was the only one followed in detail, but cross-trenching revealed three more between it and the south rampart, and no more for some distance to the north.

The trenches may represent two parallel buildings, barracks or stables, about 15 and 30 feet wide respectively, separated by an interval of 9 feet, representing a street or alley. The southernmost building lies 12 feet behind the rampart, an interval matching the end of the trench ascertained on the east. It is very clear that systematic trenching would quickly recover the plan of the timber buildings.

(e) CONCLUSIONS.

No sign whatever was noted of stone buildings, and no Antonine pottery was recovered. Both these points would suggest that the occupation of the site was wholly early, as has been thought of that at Inchtuthil. If this is so, the fort is one of the few in Scotland which are free from the complication of an Antonine reconstruction, and at the same time completely accessible to the excavator. It would seem to offer an exceptional opportunity not only of checking results already obtained, but also of adding to our knowledge of the earlier Roman hold upon Scotland. Since Sir George Macdonald's brilliant reconsideration of the structural evidence about the Agricolaan occupation (*J.R.S.*, vol. ix. p. 132), it has been a matter of common knowledge that the permanent organisation following that invasion was a great deal more thorough and more soundly conceived than had been thought. The discovery of this new fort seems to confirm that view in a remarkable fashion, as a further consideration of its position will show.

Fendoch fort lies upon a natural transverse route between Glenalmond and the south-west. Hitherto, it has been thought that the only Roman outpost in this direction was Dealgin Ross, an interesting and complicated site, dated to the Flavian age by coin finds. But Fendoch lies upon the direct route between Dealgin Ross and "Bertha." There can thus be no doubt that Roman troops often used this natural corridor. The report of Colonel Shand further suggests that in fact they provided it with a road, coming westwards from Monzie by Connachan. If, however, the object of this road was to come from Strageath to Fendoch, there is no need to go to Monzie: and we are entitled to suggest that his turn in the line, above Monzie, was not merely a right-angled turn, but a T-junction, where a larger main cross-road from Fendoch to Dealgin Ross was joined by the minor 12-foot feeder from Strageath. Nor can it be regarded as certain that the transverse line of road towards the south-west necessarily stopped at Dealgin Ross. On that site to-day there are clear signs of a great road leading south-eastwards, either down Strathearn, or back over the

natural pass to Ardoch. But there is also a causeway leading out of the fort south-westwards, up Glenartney: and Sir George Macdonald has discovered an anonymous plan of the site, made when the remains were less indistinct than now, which shows this as a prominent roadway, metalled and kerbed. The route up the glen and over the hills to Callander is not now organised as a motor road; but it is a traditional pass, marked on Stobie's map of Perthshire. It is no worse, if as bad, as the principal Roman lines of penetration through the Lake District further south. Are we then to recognise, in the new fort at Fendoch and the half-forgotten traces of a road-system connecting it and Dealgin Ross with the south and south-west, a complement to the main line of penetration by Ardoch and Strageath? It is at least a logical complement. Fendoch and Dealgin Ross both do what no fort further south can effect: they block up the Highland gates, and prevent all access to the southern plains. Whoever planted them was following a policy like the modern British on the north-western frontier of India, achieving a stranglehold upon the hill-folk with greater thoroughness than has yet been realised. Developed upon these lines, the Agricola permanent scheme, however long it lasted, would gain welcome coherence and vigour. Nor is it at all likely that the discovery here recorded and now ripe for development is the only one to be made. Field-work, combined with a knowledge of past records and tested by excavation, may yet have much to teach us.

(f) PRELIMINARY NOTE UPON EARTH-SAMPLES FROM FENDOCK.

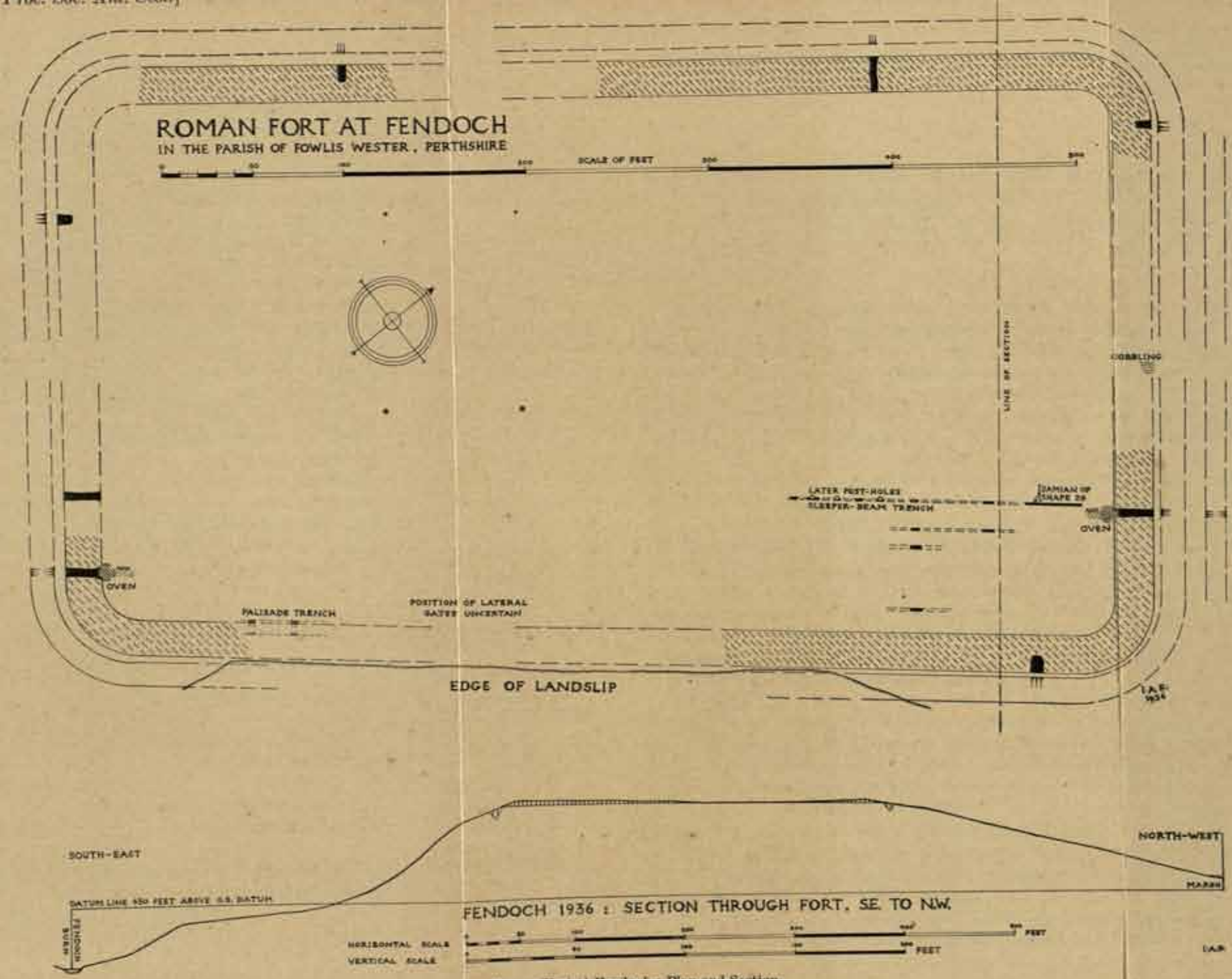
By DR A. RAISTRICK.

1. *Sample from Turf-rampart.*—This is a real turf-soil material with a very small percentage of pollen, about equally grass-spores and hazel-alder pollen. The sparseness of the pollen suggests at most fairly open scrub in the immediate vicinity, probably mainly grass land with occasional hazel or alder.

2. *Sample from Early Ditch, or Palisade-trench.*—There is a small quantity of peaty matter, and some traces of wood-fragments and leaf-mould, none of them identifiable.

3. *Sample from Early Ditch or Palisade-trench.*—A sandy clay, almost devoid of organic matter: of very fine grain matrix with much coarse sand washed in, so possibly of fairly quick accumulation.

It may be commented that while the first sample gives us suggestion of an open countryside devoid of large trees, the second and third samples attest a rapid silting of the palisade-trench after its disuse.



I. A. RICHMOND AND JAMES MCINTYRE.

PLATE II.

[To face page 406.]

II.

A STALLED CHAMBERED CAIRN, THE KNOWE OF RAMSAY,
 AT HULLION, ROUSAY, ORKNEY. By J. GRAHAM
 CALLANDER, LL.D., F.S.A.Scot., DIRECTOR OF THE NATIONAL
 MUSEUM OF ANTIQUITIES OF SCOTLAND, AND WALTER G.
 GRANT, F.S.A.Scot.

In the last two issues of the *Proceedings*, vols. lxviii. and lxix., we gave an account of the excavations of two Neolithic, long, stalled, chambered cairns of the Rousay type, the Midhowe cairn and the Knowe of Yarso. Both of these constructions had an entrance passage at the eastern end leading into a long, narrow, rectangular gallery or chamber, which was divided into small cells or compartments by upright slabs projecting from the lateral walls. The chamber in the Midhowe cairn was divided into twelve cells, and from the Neolithic level were recovered remains of twenty-five human skeletons, a small number of animal bones, fragments of seven clay urns, and a solitary flint implement, a well-made knife. The Knowe of Yarso had only three cells, but it produced, also from the Neolithic deposit, fragments of twenty-nine human skeletons, a large quantity of animal bones, almost entirely representing red-deer, a few bone tools, and sixty-nine implements and worked pieces of flint. No Neolithic pottery was found, but a few fragments of a Bronze Age food-vessel and two other pieces of pottery came from the top of the relic bed; no doubt these had been intruded at a time later than the primary burials.

In June last (1935) we excavated a third cairn of the same class, the Knowe of Ramsay. This monument is built about 12 yards from the southern edge of a narrow shelf or terrace,¹ some 50 yards wide, on the lower south-western slope of Blotchnie Field, at an elevation of about 200 feet above sea-level, barely a quarter of a mile east of the post-office at the hamlet of Hullion. To the south it overlooks Eynhallow Sound and the island of Mainland beyond, and, like the Knowe of Yarso, before it became dilapidated and covered with grass and heather, it must have formed a very prominent feature in the landscape when viewed from the lower ground.

The Knowe of Ramsay had been very much plundered to provide stones for building houses in the immediate vicinity, and all that

¹ These natural terraces which are to be seen in many parts of Rousay are well illustrated in the background of fig. 1.

remained was a long irregular mound of stones over-grown with grass, measuring 113 feet in length, 27 feet in breadth, and 5 feet in height, with a number of slabs set on end peeping through the surface of a hollow that ran along the summit. These indicated quite clearly the character of the monument, a stalled cairn. Excavation showed that its destruction had been more thorough than that of the Knowe of Yarso, which was bad enough.



Fig. 1. The Knowe of Ramsay from the south-east.

After its outline had been cleared of the accumulation of soil and broken stones with which it was encumbered, the cairn was seen to be an irregular oblong on plan, with the north-west end rounded, and the sides and south-east end, in which is the entrance to the burial chamber, generally straight (fig. 1). Its main axis runs about 40° magnetic west of north and east of south, or about north-west and south-east. The entrance passage leads into a long, narrow chamber divided into fourteen cells by slabs set on end and bonded into the walls on both sides. These uprights are placed in line opposite each other so as to form a row of stalls on both sides of the chamber, similar to those seen in the Midhowe and Yarso cairns (fig. 2).

Outer Wall.—The face of the outer wall is formed of ordinary dry-stone building, but, as already remarked, it is now very much reduced

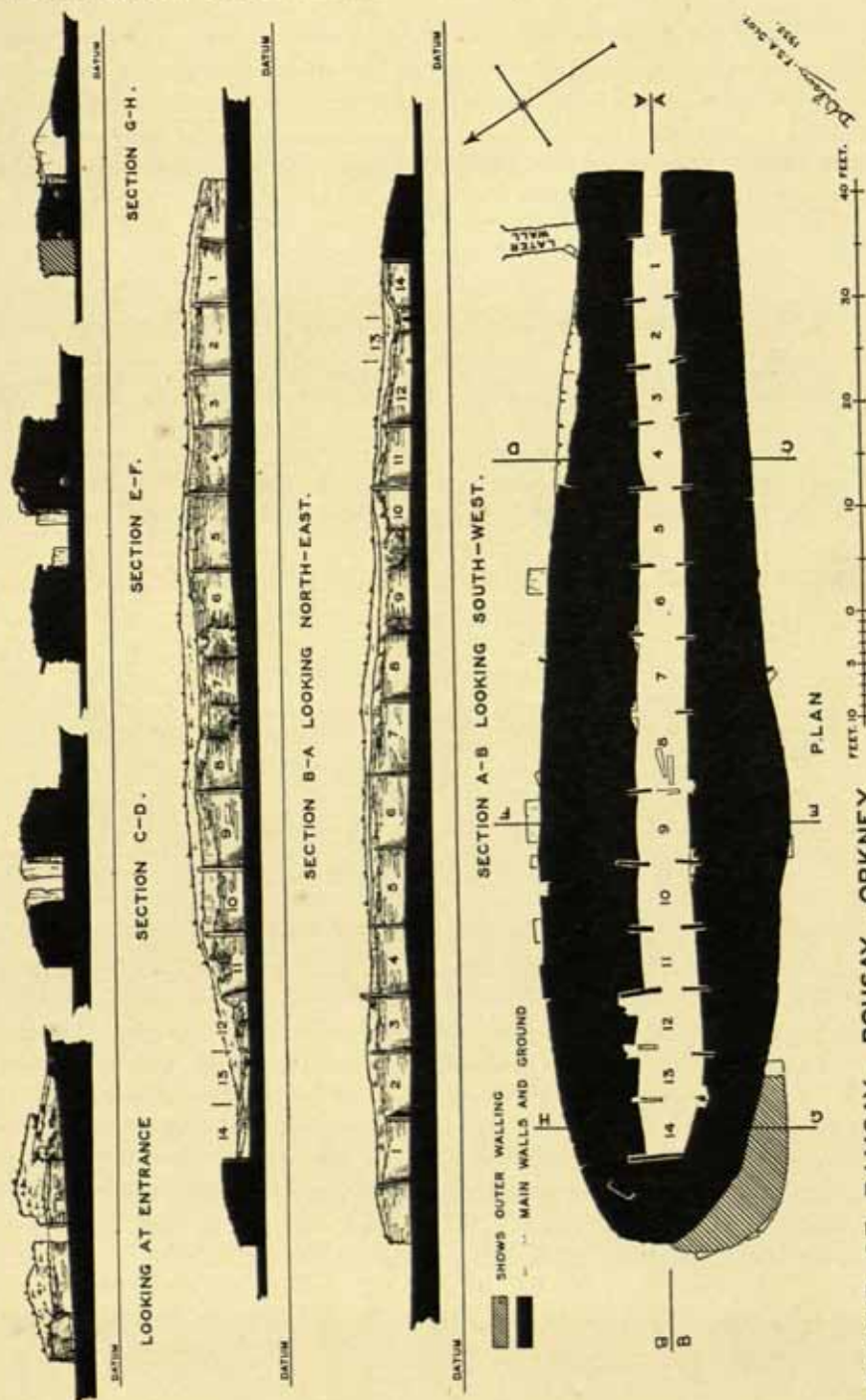


Fig. 2. Knowe of Ramsay: Plan and Sections.

in height. At the south-east end it is only 1 foot 9 inches, which height is maintained for about 30 feet along the north-east side; after this it decreases to about 14 inches until it approaches the north sector, where it has been entirely removed. At the north-west end only from 8 inches to 15 inches remain. Along the south-western side it rises from 3 feet 3 inches to 4 feet 2 inches, then decreases to 2 feet 4 inches, and as it gets nearer the south-east end the height is no more than 14 inches. The foundation course does not project outwards beyond the wall face as in the Midhowe and Yarso cairns.

There is a re-entrant angle, 6 inches deep, in the wall on the north-east flank of the cairn, 30 feet from its south-east end, and eastwards from this point there is a disturbed face of building extending for about 20 feet. The reason for this is not clear, as at a distance of from 6 inches to 9 inches in advance of it is a course of foundation slabs in alignment with the other parts of the outer wall. At first it was thought that, as in the other two stalled cairns in Rousay which already had been excavated, there was an inner built face in the thickness of the wall, but no such feature was found in other parts of the cairn, though searched for. Near the re-entrant angle, however, is a vertical joint, and opposite it on the face of the wall on the south-west flank are indications of another. But these joints cannot be traced through the building into the walls of the chamber. Possibly there may have been a change in the plan after the work of building the cairn had been started.

Some 4 feet 9 inches from the south-east end of the north-east side of the cairn is a wall or ramp built *against* it at right angles, and extending outwards for 7 feet 9 inches. It measures 2 feet 6 inches in breadth, and from a height of 2 feet 9 inches slopes down gradually until it dies out. On the west side, in the angle where it abuts on the main building, there is a recess, the lintel of which is 16 inches above ground-level, measuring 10 inches in height, 10 inches in breadth, and 7 inches in depth.

Outside the western sector of the cairn is a casing wall about 21 feet in length, 4 feet 9 inches in breadth at the centre, and 2 feet in breadth at its southern end; it is carried round in the opposite direction as far as the middle of the north-west end of the cairn, into the wall of which it gradually merges (fig. 3).

Entrance Passage.—The outer jambs of the entrance passage into the burial chamber are placed 6 feet and 7 feet 5 inches from the north-east and south-east corners of the monument. The passage measures 6 feet 5 inches and 6 feet 2 inches in length along the north and south sides, and 1 foot 8 inches in width. The walls on both sides where

they enter the chamber are 2 feet 4 inches high and a few inches lower at the outer end. The height of the passage cannot be ascertained, as all the stone lintels with which it would be roofed have been carried off.

Burial Chamber.—The total length of the chamber is 88 feet, and its inner end, which is formed by a large slab set on edge and measuring 2 feet 10 inches in height and 5 feet 1 inch in breadth, terminates 8 feet 8 inches from the face of the outer wall at the north-west end. The fourteen cells into which it is divided increase in width, though not quite regularly, from the entrance towards the inner end, from 3 feet 11 inches to 6 feet 8 inches, and their length, which is not exactly the



Fig. 3. Knowe of Ramsay: Casing Wall from south-south-east.

same on both sides, varies from 3 feet 11 inches to 7 feet 2 inches (fig. 4). In the same way the projection of the divisional slabs from the walls shows considerable irregularities; it ranges from 7 inches to 1 foot 9 inches, and the gradation is not regular but haphazard. For example, the slabs on the sides of compartment No. 5 on the north side project 1 foot 9 inches and 1 foot 4 inches respectively, while those in the stall on the opposite side project 1 foot and 9 inches. The lateral walls of the chamber, as in the Midhowe and Yarso monuments, are not correctly aligned, there being a difference of 1 inch to 3 inches in the projection of the east and west faces of some of the slabs. They measure from 1 inch to 5 inches in thickness and from 2 feet 6 inches to 4 feet 9 inches in height. The distance between the inner edges of the pairs of uprights in the eastern half of the chamber ranges from 1 foot 8 inches to 1 foot 11 inches, except between cells Nos. 4 and 5, where it is only

1 foot 1 inch. In the western half the variation is from 1 foot 8 inches to 2 feet 7 inches. Generally the tops of the upright flags are fairly level.

Near the south-west corner of compartment No. 5, about 9 inches from the adjoining divisional slab, was a small stone cist of pentagonal plan, the wall of the chamber forming one side. It measured 14 inches in length and 10 inches in breadth at the bottom, but as two of the slabs on the north side slanted outwards at the top it was 20 inches long and 18 inches wide at the mouth. The depth was 18 inches, and the



Fig. 4. Knowe of Ramsay: Burial Chamber from the north-west.

floor was rather more than 1 foot higher than that of the chamber. No relics, human or otherwise, were found in the cist.

While the Knowe of Ramsay is a good example of the distinctive, long, stalled, chambered type of Neolithic cairn, which so far has been recognised only in the Orkney Islands, it differs in some respects from the other three which have been excavated in the island of Rousay. The outer wall is quite plain, ordinary, dry-stone building, with the stones laid on bed and the foundation course in line with it, while in the other three the wall exhibits decorative motives. The Midhowe cairn has a stepped plinth for a foundation, above which the lower part of the wall shows the stones laid obliquely in one direction for some distance and in the reverse direction for the remaining portion. The

upper part, which is set back a few inches from the lower and is separated from it by a string course, has the stones built in the opposite direction. In the Yarso cairn and in one at Blackhammer, which was excavated this summer, the foundation course projects a few inches, and in the first the stones are built obliquely in the same direction along the flanks and round one end, and in the second they are set so as to form a pattern of reversed triangles, recalling some of the designs on Orkney Neolithic pottery.

In a distance of less than two miles on the naturally terraced slopes of Blotchnie Field, overlooking Eynhallow Sound, there are five Neolithic cairns: Taiverso Tuick, a two-storeyed example; the Knowe of Lairò, a long-horned cairn; and the three stalled cairns just mentioned. On the seashore, within two miles and a quarter to the north-west, is a stalled cairn at Midhowe. A long, stony mound at Rowiegar a few hundred yards south-east of Midhowe; the Knowe of Lingro towards the north-western corner of the island; a mound near Bigland in the north-east corner; and the Knowe of Craie in the Sourin Valley, though much dilapidated, exhibit surface features suggestive of their belonging to the stalled type of cairn. But they await excavation before their true character can be determined. In some of the islands to the north-east of Rousay there are other ruined cairns that in all probability belong to the same type. One, on the Holm of Papa Westray, described in our *Proceedings*, vol. ii. p. 62, and figured on pl. iii., certainly is a stalled cairn.

Most of the cells, Nos. 3 to 11, had a certain amount of rude paving mostly on the north-east side, but in No. 5 it was carried across to the opposite wall.

Signs of burning were observed in all the cells from No. 6 to No. 11, sometimes on the lateral walls and occasionally in the centre.

Very few artifacts were recovered during the excavation. There were only a bare half-dozen of small shards of reddish ware; the biggest was no larger than a shilling, and consequently it was impossible to determine the character of the pottery. These were found in cells Nos. 2, 5, and 6. The only other relics were six pieces of flint, one a poorly made scraper and the others splinters. These were all calcined except one.

Human bones were scarce and very much broken or decayed. The remains consisted of those of an adult, probably male, from cell No. 3, of an elderly male from No. 5, and two fragments of an arm and a leg bone from No. 8. The bones were not cremated, though several of those from cell No. 5, like some of the animal bones found, were scorched, presumably by the fires that had been lit in the burial chamber after the remains had been deposited there. One of the skeletons exhibited

signs of chronic rheumatism, such as have been so often observed on other Scottish prehistoric skeletons.

Bones of animals were numerous, and there were a few of birds and one of a fish. They included red-deer, sheep and ox, great auk, bittern, cormorant, curlew, duck, sea or white-tailed eagle, pink-footed goose, and conger-eel. Many of the animal bones were broken or splintered, and some, as we have seen, were scorched.

We should like again to express our thanks to Mr James K. Yorston and his son James for the care and intelligence displayed in examining the cairn, and we are grateful to Professor Low and Miss Margery I. Platt for examining the human and animal remains found.

REPORT ON THE HUMAN BONES FROM KNOWE OF RAMSAY,
ROUSAY, ORKNEY. BY PROFESSOR ALEX. LOW, M.D., F.S.A. SCOT.

The human bones are very fragmentary and mixed with numerous pieces of animal bones.

Cell No. 3.—The only human bones are the fragments of an adult, probably male, skeleton, represented by: 2 fragments of sacrum; heads, and the much eroded lower ends of right and left femur, 2 fragments of shaft of femur; fragments of upper and lower ends of a left tibia; fragmentary astragalus and internal cuneiform of a right foot.

Cell No. 5.—The human skeletal remains in this cell, while fragmentary, are evidently those of an adult male advanced in years; the bones show evidence of chronic rheumatism, and, further, several of the bones have been blackened by fire.

The skull is represented by fragments of the flat bones and a rather imperfect lower jaw; there are 2 cervical vertebræ; 10 rather imperfect thoracic vertebræ; and the fourth and fifth lumbar vertebræ very much affected by rheumatic changes; the body of the sternum and the remains of 10 right and 6 left ribs. Of the upper limb there persist fragments of both shoulder blades, a third of right clavicle, a fairly complete right humerus, lower end of a right radius, upper thirds of both ulnæ; of the hands there are 2 wrist bones and the remains of 3 right and 4 left fingers. Of the lower limb there remain a fragment of the right hip bone, an imperfect right femur, the head and a piece of the shaft of a left tibia; of the right foot there remain the astragalus, os calcis, cuboid and internal cuneiform, as well as the 4 inner metatarsals; of the left foot a fragmentary astragalus and 4 metatarsals.

Cell No. 8.—The only fragments of human bones are the lower third of a left humerus and a small fragment of a shaft of femur.

REPORT ON THE ANIMAL BONES FOUND IN THE CHAMBERED
CAIRN, KNOWE OF RAMSAY, ROUSAY, ORKNEY. BY MARGERY
I. PLATT, M.Sc., ROYAL SCOTTISH MUSEUM, EDINBURGH.

The animal remains found in this cairn, excavated during the summer of 1935 by Mr. Walter G. Grant and Dr. Graham Callander, form interesting additional evidence of the animals connected with early man on Rousay to those found the previous year at the Knowe of Yarso. The bones, associated again with human remains, appear to be, strange as it may seem, the fragmentary portions of food animals with perhaps the exception of one of the birds. As in the case of the Yarso cairn, skeletal remains of the Red Deer (*Cervus elaphus*, L.) are the most numerous. Apart from the abundance of the latter species, resemblance between the relics of the two burials ceases. The difference between these will be dealt with more fully later. Few bones approach being intact, the majority being extremely broken up, and were so probably at their initial accumulation. This suggests some reason for their fragmentary state, such as the purposeful extraction of marrow or the use of bone splinters as tools, etc. In most cells of the cairn some bones were calcined or charred, and the few pieces of deers' antlers which occur all seem to have been treated by fire, and this may account for their sparse numbers. The various species of animals represented by the bones in the individual cells are noted below.

Cell No. 2.—The most numerous relics occurring here were those of the Red Deer (*Cervus elaphus*, L.). Mature animals of a medium size were represented together with young ones as evinced by the presence of numerous milk molars and under-sized ribs. Almost as plentiful as the Red Deer were the remains of sheep, which appear to be of a slender and horned variety. The majority of these bones were from mature sheep. Ox bones took third place in importance—their remains being but very scanty. Many of the larger bones of both deer and ox were split and broken in various ways, possibly for the extraction of marrow. In this cell there was little evidence of calcination. Two bird bones occurred—the humerus of a Cormorant (*Phalacrocorax c. carbo*, L.) and the ulna of a Gannet (*Sula bassana*, L.), together with the shell of a common periwinkle (*Littorina littorea*, L.) from the shore.

Cell No. 3.—Very fragmentary remains of the Red Deer predominated here, representing both young and adult animals. Sparse indications of ox and sheep were also found. The majority of the bones were split and calcined, the greater part being the merest fragments too

small for identification. No bird relics were present in this section of the cairn.

Cell No. 4.—Bones of the Red Deer again exceeded in numbers those of any other species, their remains being indicative of young as well as mature animals. Ox and sheep were equivalent in numerical importance. All the material was broken up and of little comparative value. The humerus of a Gannet (*Sula bassana*, L.) occurred here, and also the lower jaw of a conger eel (*Conger vulgaris*, Cuv.). The latter is the only relic of piscine nature found in this excavation.

Cell No. 5.—Bones of old and many young Red Deer occurred here, milk molars being especially numerous. Two fragmentary burrs of antlers were present, from separate individuals since they differed considerably in thickness. The latter, as also many of the broken bones, were calcined. In addition to the remains of Red Deer, only two broken ribs of an ox were present and the tibio-tarsus of a Cormorant (*Phalacrocorax c. carbo*, L.).

Cell No. 6.—Red Deer were represented by almost every bone of the skeleton, though the presence of only three animals could be identified. Ox remains were very scarce, there being rib fragments only, whilst sheep were again unrepresented. The coracoid of a Sea or White-tailed Eagle (*Haliaetus a. albicilla*, L.) was the only bird bone. Calcined and split bones were numerous.

Cell No. 7.—Bones of the Red Deer were again the most abundant, the species being represented by remains from adult and young animals. It is impossible to estimate the number of individuals, owing to the extremely broken state of the fragments. Part of a reasonably large tine was found here. A few sheep bones occurred of a species quite indeterminable. Ox relics were also very scarce and consisted principally of split long bones and broken ribs. Apart from the mammalian species only three bird bones remain to be recorded. These were: the ulna of a Bittern (*Botaurus s. stellaris*, L.); the humerus of a Cormorant (*Phalacrocorax c. carbo*, L.) and the humerus of a Gannet (*Sula bassana*, L.). Many bones had been calcined or split for extraction of marrow.

Cell No. 8.—This cell contained more animal relics than any other. There is, too, an increase in the number of bird species. Excepting the latter fact, the proportion of species one to another does not differ materially from that of the cells previously described. Red Deer was again predominant, and among the numerous remains of this species the only cannon bone approaching completeness was found; its measurements are recorded below:

Metacarpal of Red Deer.

Maximum length	25.5 cms.
Maximum width of proximal end	3.1 ..
Maximum width of distal end	3.5 ..
Minimum width of shaft	2.2 ..

Numerous milk molars, also bones from small immature and fully grown deer in almost equal quantity occurred. Of the adults the majority of the remains indicate deer rather larger than those of the present day, and of decidedly good size for island stock. From the evidence of a particularly large rib head, one deer at least was of enormous size, comparable with the large prehistoric deer of the mainland of Scotland, whose remains are occasionally found in the peat mosses. In this part, too, the third molars of sheep were particularly plentiful, showing the presence of many mature animals. Among the sparse bovine remains is a good metatarsal, indicating an ox of small and slender proportions. Measurements of this bone are given below, together with the corresponding data, for comparison, from the skeleton of an ox of small Shetland race stored in this Museum.

<i>Metatarsal of Ox.</i>	Ramsay, Rousay.	Shetland, R.S.M.
Maximum length	23.8 cms.	20.9 cms.
Maximum width of proximal end	4.58 ..	4.43 ..
Maximum width of distal end	5.59 ..	4.93 ..
Minimum width of shaft	2.74 ..	2.5 ..

From the figures it is seen the two oxen were of similar build, the Ramsay specimen being slightly larger. Split bones form a goodly proportion of these mammalian remains and there is some evidence of calcination. Eleven bird bones present in this section represent six species. These are: the Curlew (*Numenius a. arquata*, L.), the Gannet (*Sula bassana*, L.), a Duck whose species is undetermined, a Swan, in all probability the Whooper (*Cygnus c. cygnus*, L.), the Cormorant (*Phalacrocorax c. carbo*, L.) and lastly the Great Auk (*Alca impennis*, L.) which was probably quite common in Orkney during certain seasons, at the time when these remains were assembled.

Cell No. 9.—In this cell the bones of Red Deer and sheep occurred in about equal proportions. In kind and condition they resembled those of the foregoing sections. A few ox remains, chiefly ribs, were also present here. The bird relics consisted of the broken ulna and humerus of a Gannet (*Sula bassana*, L.) and the carpo-metacarpus of a Pink-footed Goose (*Anser brachyrhynchus*, Baillon).

Cell No. 10.—Red Deer was the most abundant species here, the remains represented young and adult animals similar to those previously described. Sheep and ox bones occurred but in very small numbers. The former species was represented by molar teeth only, and the latter by two rib fragments. Split and broken bones occurred as usual, but there was little evidence of calcination. The humerus of a Gannet (*Sula bassana*, L.) was the only bird relic.

It will be gathered from the previous notes that in every section of the cairn the remains of a presumably wild animal, the Red Deer, exceeds those of the domesticated species. This was the case in the Knowe of Yarso, the contents of which were examined last year, with this difference, however, that here at Ramsay domesticated breeds are definitely present, whereas at Yarso they were so sparse as to indicate possibly an accidental occurrence. The significance of Red Deer in a prehistoric structure in Rousay was commented upon in a previous publication (*Proceedings of the Society of Antiquaries of Scotland*, vol. lxi, Sixth Series, Session 1934-1935, p. 343), and these notes give further confirmation of its occurrence in this locality. Regarding the number of Red Deer typified by the whole of these remains it is quite impossible to estimate exactly because of their very imperfect nature. Taking a right calcaneum as an index, it is certain that there were at least fourteen, and in all probability were actually many more than this.

It is apparent from the species of birds represented that these, too, were of food value to the early inhabitants of Rousay. The species occurring most often is the Gannet, which was used for food extensively in the past and up to recent days still contributed a staple diet for islanders, such as St Kildans. The flesh of the Garefowl or Great Auk was, in addition, greatly prized by fishermen and coast-dwelling tribes in the past. The inclusion of remains of this last species is interesting as indicating no doubt a period when this now extinct, and for many centuries diminishing, species must have been common in the northern islands. The same might be said of the Bittern, and perhaps also of the Sea Eagle which is much less extensively distributed than at one time not many years past. Although these early natives of Rousay appear to have been hunters and herdsmen rather than fishers and of sea-faring habit, judging by the paucity of fish remains, a conger-eel, perhaps caught stranded in the rocks, would afford an acceptable though accidental addition to the usual food supply, but this point should not be stressed too much as shell-fish, which could be easily obtained, were represented by a solitary periwinkle.

Further, to the remains recorded under the separate sections above are a handful of the shells of the garden snail (*Cepaea hortensis*, Müller) which occurred in Cell No. 5. These may be of archæological value since they have been recorded in holocene deposits from various localities from time to time. Alternatively, they are of widespread occurrence in the British Isles to-day and may have been included in comparatively recent soils.

My thanks are due to Mr Grant and Dr Callander for kindly submitting the material to me for examination, and also my gratitude to the former gentleman in permitting me to include in the collection of sub-fossil bones at the Royal Scottish Museum these remains which may prove of comparative value at some future date.

III.

BANCHORY MICROLITHS. BY Miss HILDA M. LESLIE PATERSON, F.S.A.Scot., AND A. D. LACAILE, F.S.A.Scot.

THE RIVER TERRACES NEAR BIRKWOOD, BANCHORY, KINCARDINESHIRE. BY Miss HILDA M. LESLIE PATERSON.

On the right bank of the River Dee, about 300 yards from the confluence of that river with the Water of Feugh, in the parish of Banchory-Ternan, Kincardineshire, and at a spot where the south Aberdeen-Braemar road (A. 943) crosses a stream called the Burn of Beltie, there is a series of clearly defined terraces. These terraces continue at varying altitudes as far as the estate of Knappach, after which they become wider and less discernible as the valley stretches eastward towards Aberdeen and the coast, some sixteen miles away.

At Birkwood, 650 yards or so east of the Burn of Beltie, the surface of the low terrace stands 26 feet above the river; it is perfectly flat pasture land which has not been broken up for well over fifty years (fig. 1). The surface of the next, the fluvio-glacial terrace above, higher by some 30 feet, is undulating and escarpated, and extends from the base of the Hill of Maryfield to the south. It was on the low terrace and close to where a small woodland stream passes through a marshy hollow on its way to the Dee, about 400 yards south-west of Birkwood

House, that I found in a mole-hill, on the 16th March 1906, the first microlith of this collection (fig. 2, No. 32). This occurred some time after reading a most illuminating and instructive article, "The Home of the Pigmies," by the late Rev. Reginald A. Gatty, which was published in *Chambers's Journal* in 1905. The microlith or "pygmy flint," as these minute artifacts were then usually named, was immediately sent to Mr Gatty, who was greatly interested in its discovery, and requested me to forward it to Dr Joseph Anderson, at the National Museum of Antiquities, Edinburgh, as he (Dr Anderson) did not believe that pygmy flints were to be found in Scotland.

To Edinburgh it went accordingly, and Dr Anderson was convinced, and wrote stating that he did not think he had ever seen a finer one.

Since then the collection has increased steadily year by year, the fields on both the lower and upper terraces at Beltcraigs, Birkwood, Maryfield and Knappach yielding many beautiful specimens all showing the distinctive microlithic workmanship. A few specimens have been found on the left bank opposite my home, and the late Miss Outram recovered some small flints on the same bank near Inchmarlo Cottage farther upstream.

In 1912 I was asked to read a paper and exhibit the collection before the British Association at Dundee, and was there congratulated by Professor Boyd Dawkins on the new locality I had discovered.

By the beginning of 1935 practically all the usual Tardenoisian types had been included, with one exception, though, had I known it, several of that particular form had actually been in my possession for years, lying unrecognised in a mass of unclassified flint debris. This exception was the micro-burin, for, though most anxious to discover one, I was uncertain of its form until in March of that year, when searching in a field on the lower terrace at Maryfield, I picked up what seemed the long-looked-for object at last. It was sent to Mr A. D. Lacaille, who was then extending his researches on the repartition of the micro-burin in the so-called Scottish Tardenoisian, and who had most kindly sent me sketches to enable me to recognise the micro-burin. He confirmed my belief that I had found a true specimen, and described it as a "beauty." Once familiar with the form I made a careful investigation of all my collection of uncertain chips and pieces and forwarded the most likely objects to Mr Lacaille, who identified several others, and later four were figured by him in our *Proceedings* after exhibition at a meeting of the Society on 13th May 1935.¹ Besides these, I re-

¹ *Proc. Soc. Ant. Scot.*, vol. lxi. pp. 443-5; vide also footnote, p. 425, *infra*.

covered other micro-burins from the same field on the lower river terrace at Maryfield.¹

Mr Lacaille happened to be in the north of Scotland about this time, and, calling on me, said that having regard to the constant stressing in certain archaeological circles of the absence of stratigraphical data connected with Scottish microliths, he was most anxious to excavate in the low terrace. This was gladly agreed to, and a spot was chosen at some 400 yards south-west of Birkwood House and about 20 yards east of the place where I found the first microlith in 1906. A trench, 3 feet 6 inches long and 18 inches wide, was made and was cleared out to a depth of 2 feet 9 inches. At a depth of 2 feet 2 inches the first artifact, consisting of a delicate blade of grey flint, and an occasional one, were recovered, until a depth of 6 inches more, when sandy matter was reached, where humanly struck pieces became more numerous. That afternoon 11 worked specimens, including two fragments of small cores, were found.

Realising the significance of these discoveries Mr Lacaille asked Dr Graham Callander to join us, which he did, and it was arranged next evening that the excavating should be continued the following day. At Mr Lacaille's suggestion the trench was carried down to a depth of 3 feet 3 inches in yellow sand. At 2 feet 11 inches from the surface a diminutive core of greenish-grey flint and 11 other pieces were found. That same afternoon the excavation was enlarged to a width of 3 feet in the northern half and more flints were found. As on Tuesday, 14th May, nothing was found in the next 2 or 3 inches; but at a depth of 2 feet 11 inches a micro-burin and a core of red flint were got, and 14 flints were recovered mostly at a depth of 2 feet 9 inches to 3 feet—the greatest depth at which any were found being 3 feet 3 inches, where two were discovered. Small fragments of charcoal at all levels producing worked flints were also present, one piece of charcoal being found at the lowest producing point, nearly 3 feet 3 inches. This charcoal has been identified by Mr J. Cecil Mayby, Oxford, as *Quercus* sp. (Common Oak), and possibly derived from a single original log.²

The character of the constituents of the low terrace is shown in the diagrammatic scale drawing accompanying sketch profile of the lie from the road to the Dee south-west of Birkwood. The key-map shows the low right bank and fluvio-glacial terraces near Birkwood. On account of the nature of the latter its limits are necessarily indefinite,

¹ *Vide* footnote, p. 425, *infra*.

² Report, dated Bio-physical Laboratory, Oxford, 11th December 1935.

but as survey shows that they approximate to the 200-foot contour this has been indicated for guidance. The spot excavated is marked X. The extremities of the line of profile are respectively the point A near the road and B at the water's edge, datum being taken at 135 feet O.D., the altitude of present river-bed.¹

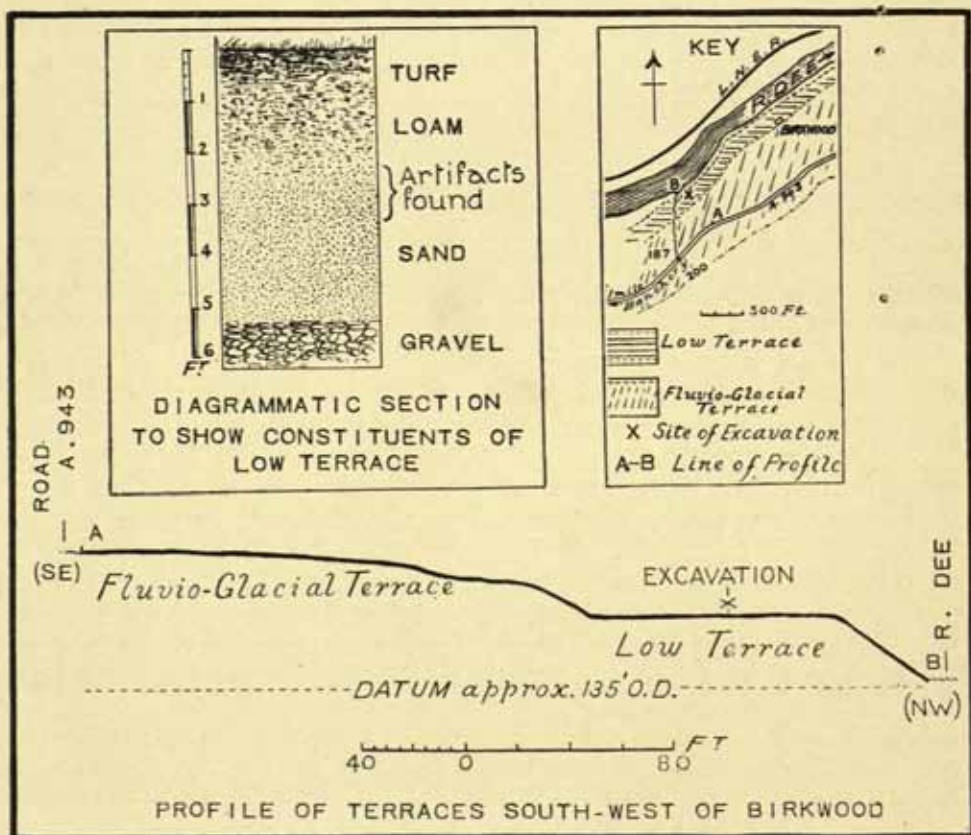


Fig. 1. Microolithic Site at Birkwood, Banchory.

COMMENTS ON THE ARTIFACTS. By A. D. LACAILLE.

Up till now microliths recorded from Scottish sites have consisted of finds from the surface of rich agricultural land or in sandy areas,

¹ For this and other information relating to the terraces we are indebted to Dr Alexander Bremner, Aberdeen, whose work on the local deposits has proved of great value. (*Physical Geology of the Dee Valley*, University Press, Aberdeen, 1912; publication of the Aberdeen Natural History and Antiquarian Society.)

but it has been stated that some Tweedside implements exposed by the plough come from 12 inches of sandy clay resting upon gravel.¹ This is, of course, far from saying that the artifacts occur in a stratigraphical context. In the case of the specimens figured in the present notes we are confronted mainly with representatives of a collection from fields which have long been under cultivation. The lands from which these artifacts have been recovered are situated on the right bank of the river on the fluvio-glacial terrace at about 185 to 190 feet O.D., or from 50 to 55 feet above the River Dee, and on the narrow low river terrace 26 feet above the river near Birkwood.

Digging was resorted to with the object of ascertaining if there existed any geological or other data to fix chronologically the position of some microliths, noted over twenty years ago from the lower part of 2 feet of loam resting upon the terrace.² The excavation, not extensive on account of limited time at disposal and a late and severe snowstorm supervening, had, nevertheless, the result of determining the constituents of the low terrace of the right bank of the Dee near Birkwood, and it was particularly fortunate that several characteristic artifacts were recovered from a deposit undisturbed until broached by Dr Callander, Miss Paterson and myself in the course of the investigation in May 1935. The objects revealed by spade and riddle do not differ typologically from those which have rewarded Miss Paterson's continuous scrutiny of the surface of the fields near her home. The charcoal, identified as *Quercus sp.*, if it be associated with the humanly worked and struck pieces in the fine sand from the depth of 2 feet 5 inches to 3 feet 3 inches, beyond testifying to climatic conditions favourable to the growth of the Common Oak, does not go far in establishing the age of the pieces. Still, it is thought that we are furnished with information assisting to lay a surer foundation for the study of Scottish stone industries, and more specially for the closer examination of those of Tardenoisian facies.

The Deeside microliths impress by their similarity to those of the Tweed valley, and, indeed, putting aside the question of material, collections of microliths from localities near the two rivers might well be grouped together.

A comparison forces itself between the Tweed and Dee artifacts on the one hand and the collection from Shewalton Moor, Ayrshire, on the other. Reasons were advanced for regarding the Ayrshire microliths as later than the generality of specimens from Tweedside,³ and,

¹ *Proc. Soc. Ant. Scot.*, vol. lxi. p. 318.

² *Man*, 1913, No. 58.

³ *Proc. Soc. Ant. Scot.*, vol. lxiv. p. 48.

while the same views may not now all be held, some evidence emphasises differences and similarities. The fact that the microliths and associated artifacts discovered at Shewalton Moor appeared to belong to an industry of more evolved character than those of the Tweed valley, as known then, was commented on in the detailed description of the Scottish sites and other localities producing microliths: and examination of their industries since 1928, as opportunity served and the courtesy of collectors permitted, generally upholds the opinions expressed several years ago. It is recognised that the disparity may not be of great significance, and that differences consist principally of those suggested by the presence of certain types in a group or groups. Until now discoveries are such that one cannot apply to Scottish microliths the advanced methods of study practicable elsewhere.

Most recorded Scottish sites yielding artifacts of Tardenoisian facies also produce forms of implements usually ascribed to the Neolithic and Bronze Ages. It is not easy to determine if such are only strays dropped on sites pertaining to these industries with which we are concerned, but in Miss Paterson's collection examples suggestive of Neolithic or later stage of culture are few: a number of those which do occur are trimmed in the same way as the microliths of conventional forms. On the other hand, there are several pieces of sorts which can be paralleled in the products of the earlier phases of the Tardenoisian industries represented in England and beyond the Channel.

As all but the few artifacts from the tentative excavation have been surface finds from a fairly extensive area it is not feasible meantime to adopt the spectrum method of summary. For these brief notes one is restricted to an examination of selected specimens and to some of the comparisons they suggest. It seems that the Deeside implements of Tardenoisian facies found by Miss Paterson exemplify what so far is purest of the Scottish microlithic industries.

To the prevailing shades of the native flint and the local pebbles is greatly due the beautiful appearance of the Deeside microliths, and the fine quality of the material has permitted of the most delicate workmanship. Variety of stone and colours is not the marked feature that exists in the Shewalton Moor and even the Tweedside collections. The characteristic so common in lots of Scottish microliths, namely that of diversity of material, is almost entirely absent from the Birkwood collection.

The industries of the Birkwood district include geometric, sub-geometric microliths, and very small implements usually pointed and trimmed in characteristic manner. Core-scrapers, gravers, and micro-

burins have been found, but diminutive round steep scrapers of the kind which are a feature of the microlithic industries of the Tweed valley have not so far been picked up. Awls, of the type which occupy a prominent place in the Shewalton Moor collection, are not common, Nos. 11, 12 and 13, fig. 2, being exceptions, but they are much more delicate than any Ayrshire specimen.

Geometric forms are not numerous.¹ Trapezes and trapezoidal forms have not been found as on the Shewalton Moor. This fact, I think, may indicate that the Ayrshire microliths belong to a later group than those from Deeside.

In the geometric and other microliths the bulb of percussion is invariably wanting, the flake or blade having been truncated. In the few instances where the bulb or part of it remains the implements depart from the more usual microlithic form, and are larger although they may be trimmed in microlithic technique.

Though Miss Paterson has at times figured some of these examples, it is only now that the real importance of her series appears. Fig. 2, Nos. 1-40, shows a series representing the local microlithic industries. Figs. 4 and 5 illustrate various implements and cores.

A brief reference in the *Proceedings* to Scottish micro-burins drew attention to some examples from Deeside which compared with specimens from the Tweed valley.² In the present notice three in fig. 2, Nos. 34, 35 and 36, are figured to show variations. Others in Miss Paterson's collection are mostly of the type represented by No. 34. No. 36 has the notch on the left instead of on the right, as is more usual. The notched flake, No. 33, is included here, as similar pieces have been shown to be associated with the micro-burin. All (Nos. 34, 35 and 36) are butt-ends of flakes, but the piece of flint in which is fashioned the micro-burin No. 36 is without bulb of percussion. It will be recalled that notched flakes similar to the present instances have been stressed in descriptions of microliths from the Tweed valley, and it is from the Border river-basin also that micro-burins are recorded.³ Shewalton Moor has yielded neither notched flakes nor micro-burins. These notched flakes have of late years been intensively studied in connection

¹ The only perfect geometric microlithic found by Miss Paterson was picked up by her on the high terrace at Birkwood and sent me after MS. went to press. It consists of an equilateral triangle of grey flint.

² *Cit. sup.*, vol. lxix, pp. 443-45.

³ It is hoped to refer later to the repartition of the micro-burin in Scotland. Recent research proves that examples are by no means scarce. Up till now Miss Paterson has recovered a score of micro-burins, several of which compare with variants referred to and figured by M. E. Vignard in his "Les Microburins Tardenoisians du Sébillien" in *Compte Rendu*, pp. 75-76, Congrès Préhistorique de France, X^{ème} Session, 1931, Nîmes-Avignon.

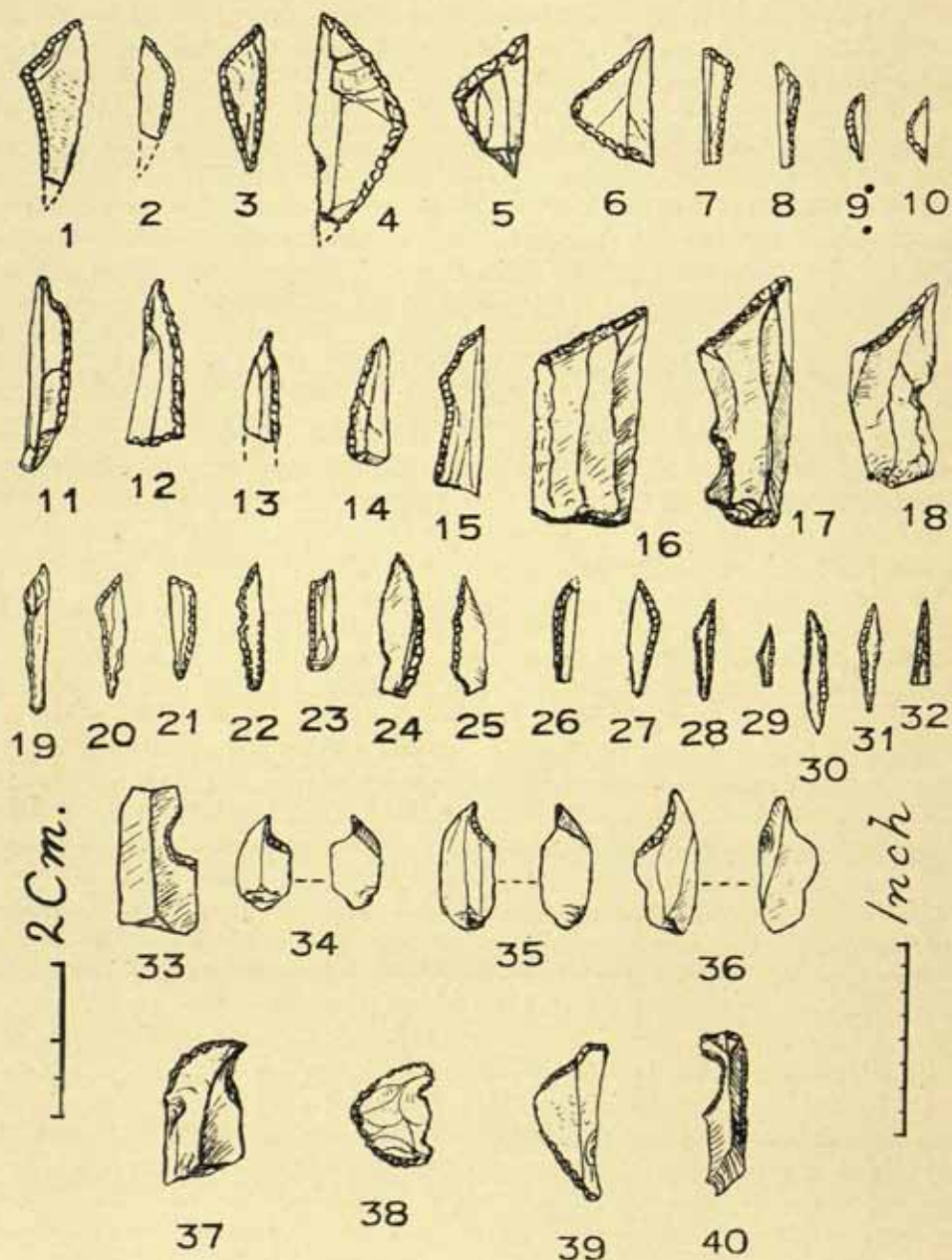


Fig. 2. Banchory Microliths.

with the question of the production of the micro-burin and to determine whether it is a true tool or merely waste from the manufacture of certain implements of geometric shapes.¹

The triangles are represented by Nos. 1-6 in fig. 2, the first three being scalene and the second nearly isosceles. Only in the case of No. 3, has the third and longest edge also been trimmed, and that not wholly, the other examples being worked only on two edges. Nos. 7 and 8 are of the sub-triangular shape already noticed in Scottish collections. Nos. 9 and 10, diminutive crescents with blunted arc, are similar to examples already found in south-eastern and south-western Scotland. The thick points, Nos. 11 and 12, differ in that the base of No. 12 has been dressed in addition to the right edge, which in both artifacts is steep. No. 13 is trimmed to an elongated and awl-like point along part of the left edge and wholly along the right. Nos. 14 and 15 compare with Nos. 11 and 12, but they bear the trimming on the more usual left edge. It may be observed in No. 15 that the dressing near the point of the implement is more delicate than on the longer lower part of the edge.

Thanks to Dr W. A. Munro, who kindly sent me a series of recent Tweedside finds for study, I am able to say that Nos. 16 and 17, which I had hitherto regarded as unparalleled in any other Scottish microlithic collection, are closely matched by a smaller and patinated obliquely pointed truncated blade. The two Deeside examples, however, retain the bulb of percussion. No. 18, with notched right edge, is also obliquely ended, but the uppermost edge, while trimmed in exactly the same way as Nos. 16 and 17, and similarly to all accompanying microliths, is very slightly concave. Among Dr Munro's microliths is an analogous specimen.

To judge from other Scottish collections, consisting of products of Tardenoisian facies, the most numerous artifacts are narrow pointed flakes and blades steeply battered down one or more edges. It is not surprising, therefore, that in the Birkwood collection these prove to be abundant and a set is figured as the range 19 to 29. Nos. 30, 31 and 32 are the same in character, but may perhaps more accurately be called steeply dressed rods. Of all these No. 23 with its small lateral extension calls for notice as furnishing an example similar to one figured in the report on the Dryburgh Mains collection acquired by the Museum.² No. 24 approaches the crescent in form, but can hardly be put in the same category as Nos. 9 and 10. The extremely delicate point, No. 32, apart

¹ The subject has not been neglected in Great Britain, but it has not been so keenly followed as on the Continent, where theory has passed into actual experiments in the production of the piece in various materials favoured by prehistoric man.

² *Proc. Soc. Ant. Scot.*, vol. lxi, No. 33, fig. 1, p. 319.

from the fact that its discovery in 1906 caused Miss Paterson to become the collector of this classic Scottish series, is noteworthy as comparable with the needle-like flint points found on the Glenluce Sands and exhibited at the Glasgow Exhibition in 1911.¹

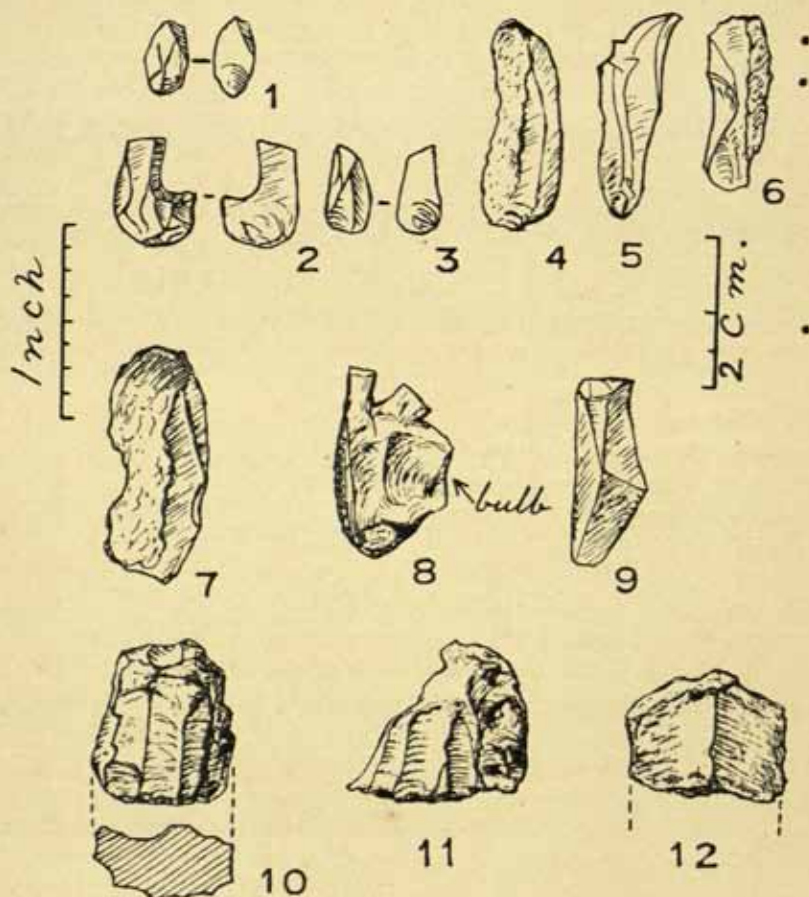


Fig. 3. Banchory microlithic industry: Artifacts from the trench in the low terrace.

The last four specimens, Nos. 37, 38, 39 and 40, have been included on the merit of their odd shapes coupled with the microlithic technique evident in the trimming of each. I recall that Dr W. A. Munro possesses an implement found near St Boswells, Roxburghshire, which, both as regards shape and trimming, bears a close resemblance to the curious

¹ *Historical Catalogue of the Scottish Exhibition, Glasgow, 1911, p. 831.*

beaked specimen, No. 37, fashioned in a truncated flake.¹ The workmanship and almost perfect semicircularity would justify a place for No. 38 among geometric microliths. To the geometric series might also have been added the triangular No. 39, but the blunting of the short edges only extends for a short way, whereas in Nos. 1, 2, 3, 4, 5 and 6 the trimming has been carried along the edges to the apex. In No. 40 is exemplified one of these oddly shaped specimens met with occasionally in microlithic series.

Several distinct shades of flint of excellent quality appear, but No. 38 is of chalcedony. Grey flint, mottled in some cases, which predominates, went to the manufacture of Nos. 1, 2, 3, 4, 5, 6, 9, 11, 13, 14, 30 and 32. In No. 10 a band of yellow is visible in the grey body. Nos. 7, 12, 20, 21, 23, 24, 25, 33, 34 and 36 are of light grey flint, a shade banded with brown in Nos. 19 and 27, and tending to a lighter hue in No. 28. Dark brown has been used for No. 17, and light brown streaked with pink for 16. In the preparation of Nos. 26, 31 and 37 red material served; this in No. 39 is tinged with brown.

Series 1-12 in fig. 3 represents some specimens from the trench in the low terrace south-west of Birkwood. The illustration includes the smallest and largest objects recovered with the exception of a lump of quartz, which appears to have been split intentionally and to have been subjected to the action of fire.

In such a concentration of struck pieces on a site yielding microliths it is not surprising to find that flakes predominate. Except in the case of the blade, No. 9, the bulb of percussion remains, and No. 12 is only a fragment of a flake of schistose grit included because of this evidence of use of so coarse a material with good flint of several shades. In each instance the bulb presents itself as a rounded swelling rather than the accentuated part of a cone.²

No. 1 is a micro-burin without notch, *langue d'aspic*, of brown flint, and may have served.³ No. 2, a thin truncated notched piece, may be compared with the surface-find, No. 33 in fig. 2.

Nos. 3, light grey flint, 4, fawn cherty flint, 5, light mottled flint, 6, grey cherty flint, 7, dark grey flint, 8, light brownish-grey flint, and 9, also dark grey flint, have either been removed from near the

¹ The excavations in the Lower Greensand near Farnham, Surrey, by Mr L. S. V. Venables, have yielded a number of curved points which are very similar to the Scottish example No. 37, *supra*. They were regarded as being remarkable enough to be specially noted and figured in *Proc. Preh. Soc. East Anglia*, vol. vii., pt. ii., p. 276.

² The production of this wide rounded bulb of percussion in certain flakes struck from cores has been demonstrated by M. Léon Coutier, the results of whose experiments in flint fracture are regularly contributed to the *Bulletin* of the Société Préhistorique Française.

³ Cf. examples figured by M. E. Vignard, *loc. cit.*, *supra*.

outside of struck nodules or from the body of flaked cores, their original situation being determinable by the presence or absence of cortex. Specimens of cores are Nos. 10 and 11. The second, of red Buchan flint of rather poorer quality than usual, retains a portion of crust. From the former, of green flint, little more could be struck.

The only dressed example from the excavation is No. 8, an irregular splintered flake of light brownish-grey flint, which is delicately and steeply blunted along part of one long edge in precisely the same manner as the microliths represented in fig. 2.

Respecting the remaining two dozen specimens (which need not be illustrated), mainly small flakes, several blades, core-trimmings and spalls, out of some thirty found by excavation, no comment seems to be called for except to state that several are fire-cracked.

Mention has been made that few artifacts common in the industries of Neolithic and Bronze Age cultures find a place in the series collected locally over a period of thirty years. Some implements, however, found near Birkwood recall kinds occurring in pre-Neolithic industries, their presence indicating certain needs of the people who produced them. In this respect it has been observed that the Tweed valley, much like the valley of the Dee, yields many forms and implements common to both regions but absent elsewhere. Moreover, artifacts occur in very similar conditions. Thus, in fig. 4 are represented larger specimens, some of which, it is hoped, will later be compared with other Scottish examples.

Two gravers, No. 1, light yellowish-grey flint, and No. 2, light brown flint, are of special interest in this collection, as gravers have not received attention from writers on Scottish stone implements. Both are worked in truncated flakes, No. 1, the larger, being thick and not inferior in technique to an Upper Palaeolithic tool. Its features are distinct. One thick spall was removed in the first place to give the typical edge. The facet so exposed was further treated by removal of three tiny flakes, and the top had one flake detached from it to produce the desired narrow chisel-edge. At the lower end, and on the same side as the graver-face, the edge bears delicate trimming. Although fashioned in an irregular portion of a flake, the working-end of the small graver (No. 2) was produced in characteristic manner. At the tip two small facets are visible, and one flake was detached obliquely from the other face.

A spall of dark grey flint from the making of a graver is represented by No. 3. Indications of resolution on the narrow side show that the material proved refractory. It is interesting to observe that the spall itself could have served as a graver.

As one can infer from the presence of gravers in the collection

that bone-working was practised, the saw, No. 4, was probably similarly associated. The flake of grey flint, along one edge of which were made the delicate teeth, appears to have been broken, but a small blade of light brown flint, with notched rather than denticulated edges, also found near Birkwood, is truncated.

No., 5 represents an implement fashioned in a complete blade of dark grey flint, the bulb soft and diffused. It is steeply trimmed along

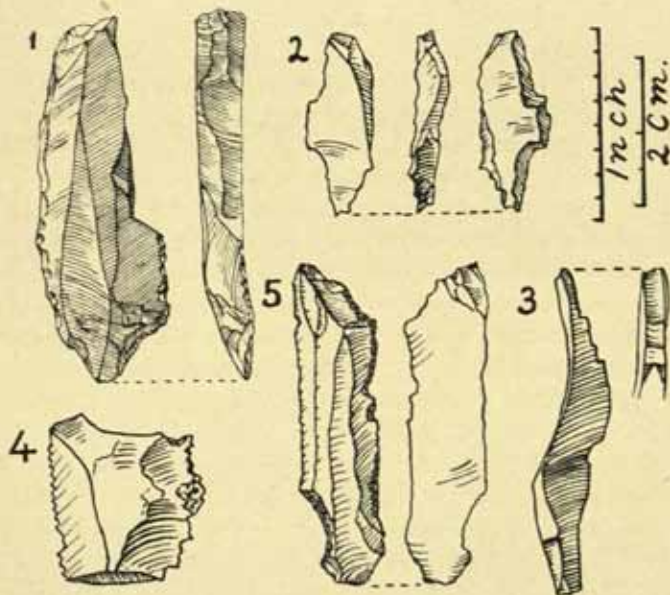


Fig. 4. Banchory microlithic industry: Gravers, etc.

part of the two long edges, but the feature to which attention is drawn is the curious dressing on a corner of the bulbar face opposite the rounded swelling. No similar instance of this peculiar working has been noted among any lots of Scottish stone implements. It may be said that this specimen resembles one of these flat gravers occurring occasionally in Aurignacian industries.¹

Considering the number of implements collected by Miss Paterson, the proportion of cores recovered by her is relatively large. The prevailing form is conical, and, although variations occur, few exceed $1\frac{1}{2}$ inch in length. In the case of those of approximately round section the width is generally no more than $\frac{3}{4}$ inch, small flakes having been

¹ In a local Upper Palaeolithic collection trimming of an end on the bulbar face occurs on various thin and thick flake implements. Some particularly fine specimens before me from Le Pech de Saint-Sour (Dordogne) show a striking likeness to this Deeside artifact.

removed until the core became reduced to a size making handling difficult. Several have served as scrapers without trimming, while some show delicate retouch of the edge. Concerning the last category, it may be said that the base of the core projects and the face inclines upward, leading one to infer that it was the intention of the craftsman to produce a scraper of the type fairly common in the Aurignacian. Steep, conical cores could not be used so conveniently as those with projecting bases and gently sloping faces. This conclusion seems borne out by the fact that the edges of the conical steep cores show no signs of utilisation but only the marks of blows dealt upon them to detach flakes. One core, not figured, thicker than its fellows, after being flaked has served as a percussion implement.

The series of cores from Birkwood and its neighbourhood is such that one would like to see the whole set illustrated, but for the purpose of demonstrating the foregoing remarks, and to show the principal types, eleven are represented in fig. 5.

No. 1, of dark red flint, a common type near Banchory, consists of a half-pebble, two-thirds of which have been struck for flakes, leaving the rest corticed. Nos. 2 and 3, of light grey flint, are the sort of core ordinarily found in the district, the first being of the most usual size met with and the second rather smaller. No. 4, grey and fire-crackled flint, may be regarded for the locality as a medium-sized core. As in the case of the preceding two, flakes have been detached from it to such a degree that no cortex remains. Nos. 5 and 6, both of grey flint and roughly prismatic (one wide, the other narrow), are of rare form. In No. 7, of blood-red flint, is a core somewhat similar to No. 1, but with sloping flaked surface, the rear retaining the crust. Its shape, admirably adapted to firm pressure of the hand, naturally leads to the pair 8 and 9, respectively of yellowish and speckled honey flint. Much use was made of these as proves inspection of the edges. The top of the smaller (No. 8) is obliquely faceted in such a manner that a narrow chisel-like extremity is provided. The strong suggestion of a graver-end is supported by the unmistakable evidence of wear. The wide facets at the top of No. 9 do not bear these indications, but it should be said in respect of this specimen that it is among the largest cores belonging to Miss Paterson. Nos. 10 and 11, of grey flint, are particularly finely trimmed scrapers, the edges dressed in much the same way as the microliths. Were No. 10 longer of body it would afford a very close parallel to a typical Upper Palæolithic keeled scraper.

Grey flint of varying shades was the principal material used on this part of Deeside, but browns, as might be expected in the north-east

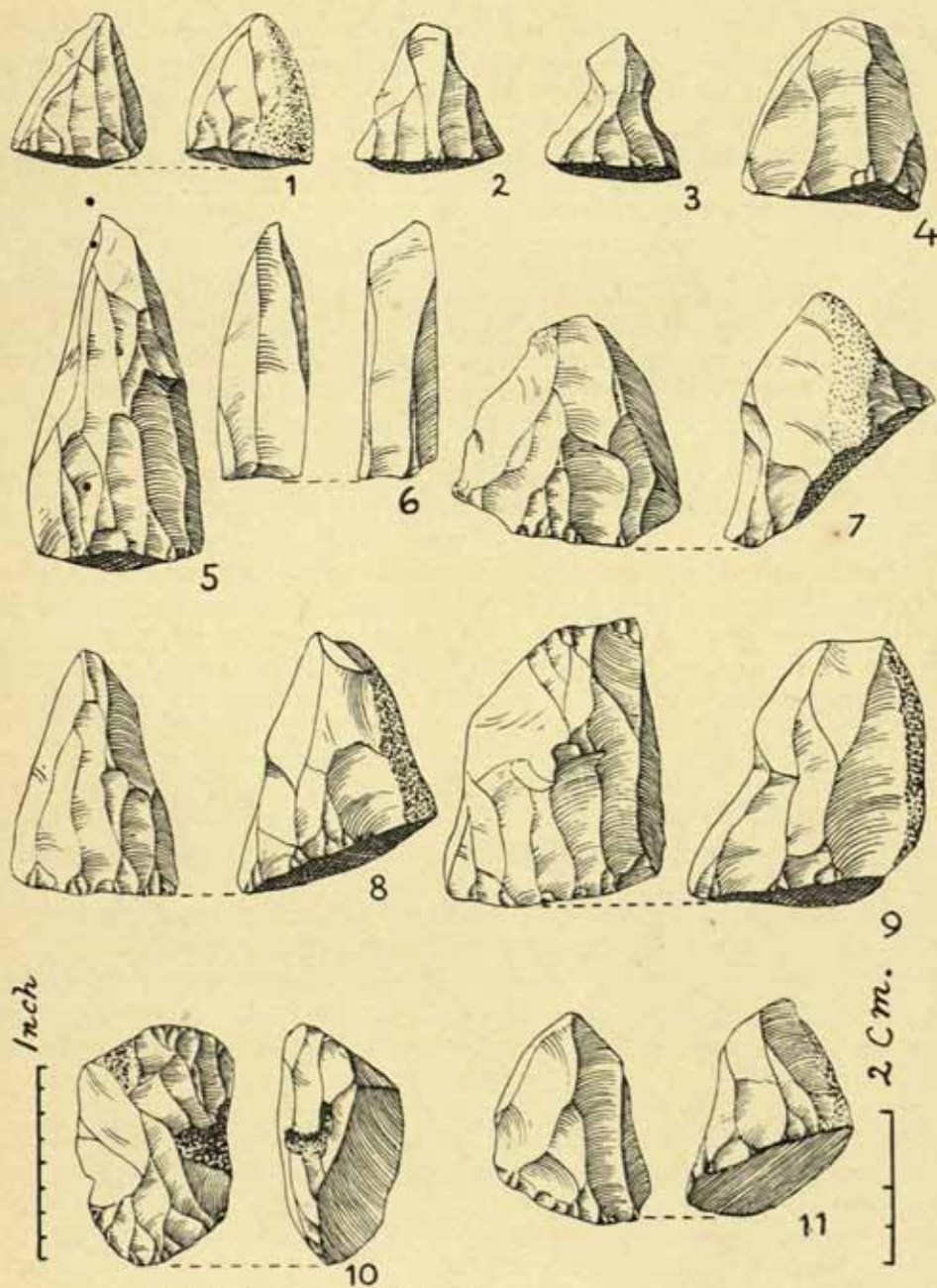


Fig. 5. Banchory microlithic industry: Cores and Core-scrapers.
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of Scotland, are well represented. The proportion of other hues to the colours prevailing in the selected specimens may be taken as the same for all the local lots. To judge from the cores, a great number of which retain much of the crust, the original size of the nodules used was far from large, this apart from the small size of the flakes struck from them.

That humanly worked pieces, identical to finds from the ploughed surface of the fluvio-glacial terrace, should be present at a considerable depth in the low terrace is comprehensible. It would appear that the people who produced these stone implements had their habitations and working-sites sometimes on the fluvio-glacial terrace and sometimes on the contemporary flood-plain. The latter is now, of course, buried under subsequently deposited alluvium, while implements left on the surface of the fluvio-glacial terrace remain unburied or quite near grass level according to circumstances such as agricultural operations. One suggestion explaining the occurrence of the flints at slightly varying depths in the low terrace is that in favourable conditions these folk established themselves near the river, from which they retired in times of floods. They would return to the bank in better season, but during the intervals their implements were covered with water-borne sand. Some of the flints from the highest occupation level would gradually come to the surface by different accidents, such as those upheavals caused by the works of agriculture. The no inconsiderable part played by burrowing animals in turning up worked flints impressed me last year when I inspected the corresponding terrace at Inchmarlo Cottage.

Determination of the age of the alluvial deposits of the low terrace will go far to fix the chronological position of the local microlithic industries. Dr Bremner tells me that the amount of material removed by river erosion before the time of this terrace, the present surface of which lies 26 feet above the river, is enormously greater than that since removed. The conditions under which erosion acted in the earlier period were probably very different from those of the later.¹

The success attending the small excavation in the low terrace at Birkwood suggests that extensive exploration here would be illuminating. Research and fortuitous discoveries in the past year or so prove that kindred industries are more widely distributed in Scotland than has been suspected. Further work ought to show their greater repartition; and it is in this conviction that the necessity for recognition of the different types and the characteristic workmanship is pleaded in excuse for tedious detailing of the artifacts referred to in the foregoing paragraphs.

¹ Letter, dated Aberdeen, 10th January 1936.

IV.

REINDEER ANTLERS FROM ROUSAY, ORKNEY.

By MARGERY I. PLATT, M.Sc., ROYAL SCOTTISH MUSEUM.

Through the kind permission of Mr Walter G. Grant, F.S.A.Scot., of Trumland, I am able to record the occurrence of some remarkably fine antlers of the Reindeer found on the island of Rousay, situated north of Mainland in Orkney. They comprise a good pair of antlers attached to the frontal bones of the skull, and a single antler of great size, larger than any previously recorded from Scotland. They were dug out of the peat on Westness near the Muckle Water Loch, in an approximate position of $59^{\circ} 9' \text{ N.}$, $3^{\circ} 4' \text{ W.}$, all three antlers being found in close proximity. It is interesting to note that the only other Reindeer's antler of great size and Scottish origin was also discovered at a depth in the peat on the same island. These facts prove that in prehistoric times, when the recent peats were in process of formation, Reindeer of large size and good condition existed in the islands of Orkney when the race generally was retreating northwards in Europe, driven by a steadily increasing warmth of climate.

HISTORICAL.

Reindeer to-day have a more restricted range than in prehistoric times. Although variations have been distinguished in present forms of both the Old and the New Worlds, the remains found sub-fossil are essentially similar to those of living representatives. It has been averred that the Reindeer survived in Scotland (Caithness district) until the twelfth century, when it became extinct. Living European Reindeer range from Norwegian and Swedish Lapland to the wooded portions of Finland and Spitzbergen, where in the former localities they are now domesticated. The species is particularly suited to northern latitudes, and is the only deer which ever populated the icy floes and bare tundras. Chiefly because of their adaptation to persistent cold, their remains were found in British river gravels and sands of post-Glacial Age, at the end of which time they began to disappear. Their occurrence in later deposits in more northerly localities (Scottish peats and in association with man in brochs) indicates a retreat northwards with an amelioration of climate. Thus towards the end of the prehistoric period in

England their relics are few, whereas in Scotland evidence seems to point to their survival until the Middle Ages.

RECORDS OF THE REINDEER IN SCOTLAND.

The list of the localities where Reindeer remains have been found is not a very big one, and the actual finds considered individually are not very imposing. Such records as we have are distributed widely, including Dumbarton, Lanarkshire, Ayrshire, Midlothian, West Lothian, Stirlingshire, Perthshire, Sutherland, Caithness, Ross-shire.¹ Out of less than a score of records in all, only in Orkney do the antlers approximate 3 feet in length; those next in size are the pair found at Kilmaurs, Ayrshire, in the glacial drift; and still smaller than the latter, a single antler 2 feet long, obtained from the Broch of Keiss, Caithness. All the remainder are fragments, measuring 1 foot or less in length. The Reindeer bones discovered in a cave near Inchnadamph are unique because of their profusion, when "shed antlers of young reindeer . . . mostly broken," numbering about 400 individuals were recorded.² In the absence, however, of more details of the size of the latter they cannot, unfortunately, be taken into consideration. It will be seen in the measurements given below that the single antler now recorded from Rousay attains a length of 98.1 cms. ($38\frac{5}{8}$ inches), and exceeds that recorded in 1869 from Rousay by Dr J. A. Smith by $1\frac{5}{8}$ inch, thus establishing a new record in size of antler for Scottish sub-fossil Reindeer.

DESIGNATION OF THE KIND OF REINDEER.

In most cases it is impossible to compare sub-fossil Reindeer relics with actual present-day varieties of Western Europe (which depend, among other data, upon the length of skull measurements for their distinction),³ for the reason that skulls as a rule are not found sufficiently complete. Two races distinguished by their shape of antlers were at one time recorded as distinct. These were a Barren Ground variety found typically in America and Greenland, and a Woodland variety most common in Northern Asia. The first is characterised by rounded and branched, slender antlers with brow tines little developed; the second by more flattened, palmated, and stout antlers having either one or both brow tines developed and often palmated. The Rousay specimens at present under consideration appear to be intermediate between these

¹ *Proc. Soc. Ant. Scot.*, vol. viii. (1871) p. 186.

² *Proc. Soc. Ant. Scot.*, vol. lxi. (1926-7) p. 169.

³ G. S. Miller, *Catalogue of the Mammals of Western Europe* (British Museum) (1912), p. 981.

two races, possessing characteristics of each. The brow and bez tines are well developed and palmated like those of the Woodland race, whilst the extensive beams are slender and approach being rounded in section as in the Barren Ground type. In this "mixed" character they resemble their living relatives in Norway, Sweden, and Lapland. At the present day the distinction into two definite races has lost much of its significance, probably due to interbreeding in prehistoric times.

MEASUREMENTS.

The three antlers have been measured in detail and the data recorded below. The first two sets of measurements refer to the pair, with spans given at the end. The third group belong to the single antler, which is a left one.

Left Antler (of pair).

Total length of beam (posterior aspect)	84 cm.	(33 $\frac{1}{8}$ ")
Length of brow tine	39.4 "	(15 $\frac{1}{2}$ ")
" " bez "	42.2 "	(16 $\frac{1}{2}$ ")
Distance along beam (between brow and bez tines)	9.5 "	(3 $\frac{3}{4}$ ")
Circumference of burr	16 "	(6 $\frac{5}{16}$ ")
" " beam above brow tine	12 "	(4 $\frac{3}{4}$ ")
" " " " bez "	11 "	(4 $\frac{5}{16}$ ")
Length of 3rd tine	3.9 "	(1 $\frac{9}{16}$ ")

Right Antler (of pair).

Total length of beam (posterior aspect) broken distally	69.5 cm.	(27 $\frac{3}{8}$ ")
Length of brow tine	31.5 "	(12 $\frac{3}{8}$ ")
" " bez "	45.8 "	(18 $\frac{1}{8}$ ")
Distance along beam (between brow and bez tines)	8 "	(3 $\frac{1}{8}$ ")
Circumference of burr	16.2 "	(6 $\frac{3}{8}$ ")
" " beam above brow tine	13.8 "	(5 $\frac{7}{16}$ ")
" " " " bez "	11 "	(4 $\frac{5}{16}$ ")
Length of 3rd tine	4 "	(1 $\frac{9}{16}$ ")
Least width of frontals, between bases of antlers	6 "	(2 $\frac{3}{8}$ ")
Span of bez tines	36 "	(14 $\frac{3}{8}$ ")
" " terminal palmate areas	64.7 "	(25 $\frac{1}{2}$ ")

Single Antler (left).

Total length of beam (inner aspect) broken distally	98.1 cm.	(38 $\frac{5}{8}$ ")
Length of brow tine	25.8 "	(10 $\frac{3}{8}$ ")
" " bez "	37.2 "	(14 $\frac{5}{8}$ ")
Distance along beam (between brow and bez tines)	6 "	(2 $\frac{3}{8}$ ")
Circumference of beam above brow tine	11.8 "	(4 $\frac{3}{8}$ ")
" " " " bez "	11 "	(4 $\frac{5}{16}$ ")

DESCRIPTION.

The paired antlers are now separate, the frontals which united them having been broken (fig. 1). When the cleavage faces are put together, the frontal area is narrow, and the pedicels bearing the antlers are slight,



Fig. 1. Paired Reindeer Antlers from Rousay.

both characters being typical for the Reindeer as distinct from the Red Deer. When mounted in their natural positions the antlers are of imposing appearance. Seen separately from the side, each antler possesses the rather ungainly and angular trend usual to this species. Seen from

the front, the main beam is at first convex, and then at the level of the back tine, which is well developed, becomes concave. The left antler terminates in three points arising from a palmate area; the right is, unfortunately, incomplete, the distal tines having been broken off. The bez tine on the right is distinctly palmate, splaying out into four points. The corresponding tine of the left antler has been broken, there being but one point remaining. The left brow tine is stronger and better developed and has one more point than the right brow tine; this variation is, however, not so pronounced as in some instances where the right brow tine may be a single prong or even be absent entirely. The beam

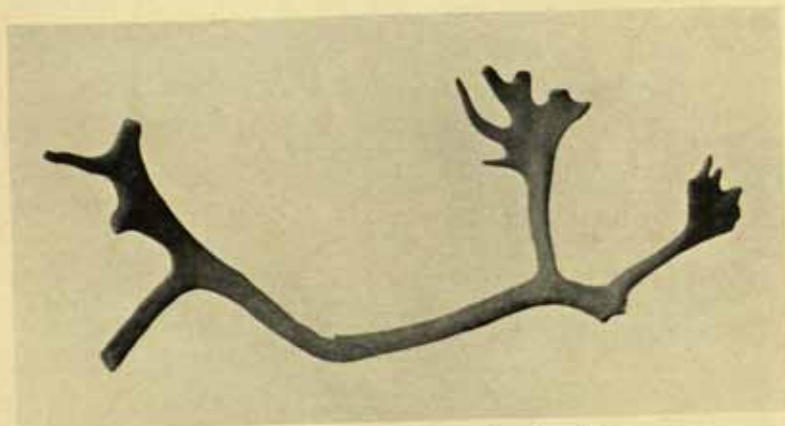


Fig. 2. Left unpaired Reindeer Antler from Rousay.

of both antlers is unevenly rounded, or elliptical in section, in places suggesting a more flattened surface, particularly on the anterior inner side, which expands into the various palmate areas on the tines. The general surface is smooth. Two superficial grooves, originating at the burr and roughly continuous, traverse the anterior inner surface of the antlers. One continues up the bez tine for a certain distance, the other up the main beam; each becoming obsolete at the approach of a definite palmate area. From the anterior surface the grooves of the right antler are more pronounced than those of the left, and disappear as a simple venation on the flattened face of the beam.

Similar grooves are seen on the posterior external aspect of the antlers. In this view, those of the right are more intermittent and indistinct, those of the left even more marked than on the anterior surface.

The single left antler has the same general proportions as the left antler of the pair (fig. 2). The beam is much longer proportionally

between the origin of the bez tine and the angle where the back tine is always situated if present. The latter is absent, however, in this case. Another essential difference lies in the lengthened terminal palmate area, from which four stout subsidiary tines arise at varying intervals; all these are, unfortunately, broken. The beam is rounded in section, except where tines branch off, or on expansion into palmate areas. The bez and brow tines are especially palmate, the former having six digitations and the latter five incipient points. The surface is smooth and particularly weathered, resulting in a peeling of the outer layers in places. Faint grooves (appearing as radiating veins) are seen on both the anterior and posterior aspects of the bez tine. A primary groove on the main beam is apparent at one side of the slightly flattened surface. There is a remaining peculiarity in the unusual boss which occurs on the posterior aspect of the antler between brow and bez tines.

ARTIFICIAL MARKINGS.

In the case of the paired antlers many fine striations are seen over most of their surface, running lengthwise along the beam or tines



Fig. 3. Sections of cut, unpaired Reindeer Antler, No. 2 showing two views of the same cuts.

respectively. Exceptionally a few short transverse scratches occur. The unpaired antler, on the contrary, shows few scratches, although the peeling surface may cloak such as may have been present at one time. In contrast to the paired antlers, it has been cut in various places, and the cuts are not all of the same age. Some on the bez tine and on the beam where it bends sharply (fig. 3, No. 1) seem to have been cut more recently with a sharp knife. The remaining cuts are much older and of different character (fig. 3, No. 2).

My grateful thanks are due to Mr Grant for giving me the opportunity of examining these antlers, and also for his generosity in defraying the cost of the illustrations.

V.

BRONZE AGE URNS OF CLAY FROM ORKNEY AND SHETLAND, WITH A NOTE ON VITREOUS MATERIAL CALLED "CRAMP." By J. GRAHAM CALLANDER, LL.D., F.S.A.Scot.,
DIRECTOR OF THE NATIONAL MUSEUM OF ANTIQUITIES.

Short cists containing cremated human remains sometimes accompanied by vessels of steatite, which are believed to belong to the Bronze Age, have been recorded quite frequently from Orkney and in less numbers from Shetland, but the number of graves containing clay urns of the period is limited, as can be seen in our *Proceedings*, vol. lxxvii, p. 345, where I described all the satisfactory accounts of such vessels of pottery that had come under my notice. Any other records that we can add to the list are, therefore, of more than passing interest to anyone studying the remains of the Bronze Age in these northern islands.

In one of the note-books of George Petrie, Sheriff-Clerk of Orkney, a Corresponding Member of the Society from 1848 to 1875, which are preserved in the Museum,¹ is a very clear account of a cinerary urn found at Grimbister, parish of Firth, Orkney, in 1859. Recently four sketch-books and some drawings by George Petrie were presented to the Library by a grand-niece and her daughter; on a loose sheet, dated 1st November 1859, is a coloured sketch of the urn. Unlike so many old illustrations of antiquities that have been published there can be

¹ No. 5, p. 33.

no doubt that it is a true representation of the vessel, drawn to the scale of one-fourth linear (fig. 1).

Petrie's account of the discovery as contained in his note-book runs:

"In autumn of 1859 I was informed by Robert Searth, Esq., of



Fig. 1. Cinerary Urn from Grimbister, Orkney. (1.)

Binscarth that one of his Tenants at Grimbister in Firth had discovered a large clay Urn and at his request had left it in the position in which it was found until I could examine it. I went to the place and found the Urn, as it had been discovered, placed bottom upwards on a rudely dressed flat stone of a circular form. It was not in a cist but merely embedded in clay surrounded by large blocks of Stone and lumps of a vitrified substance known in Orkney by the name of Cramp. Some

of the Cramp resembles white opaque glass and is evidently the result of the fire by which the bodies were burnt as fragments of bone are embedded in it. I observed a portion of a human skull and jawbone with the top or upper surface of a large human tooth or grinder among the cramp. There were very few fragments of calcined bones except those embedded in cramp. The Urn was 15 inches in height, 15 inches in diameter at the mouth and 8 inches at the bottom across which a piece of stone lay. The bottom had been crushed probably by the weight of the stone and the broken pieces had fallen into the interior. The Urn was ornamented with three incised rings around the outside near the mouth and a further rude attempt at ornament was displayed in rows of tooth-like incisions running in diagonal rows between the rings and the lip of the Urn. It was very evident that the Urn occupied its original position and that when placed bottom upwards on the piece of flagstone which was under the mouth another piece of stone had been laid on the bottom of the Urn to protect it, and clay and the cramp and the blocks of stone on which probably the fire which had consumed the body had been placed, had then been gathered around the Urn so as to form a low cairn. There were appearances also of a Barrow having been over the spot, but it had been removed long ago."

The account of the discovery attached to the drawing is substantially the same, though rather shorter, but Petrie ventures the opinion that "the bottom when entire had been perforated with a small opening which was covered by the stone" that had been placed on the inverted base. Also he says that "a fragment of the jawbone of a horse was said to have been picked up," and that "fragments of a human skull were in the urn."

The vessel evidently was brown in colour and had an upper vertical decorated rim portion, and a plain body which tapered downwards to a narrow base—quite a typical late cinerary urn. Evidently the height and the width of the base mentioned were the measurements of the vessel in its damaged condition, and consequently it had been several inches higher, possibly as much as 18 inches.

The vessel was encircled at the shoulder by two rounded mouldings, and the space above decorated with oblique lines slanting down from right to left. Although Petrie described them as being formed of "tooth-like incisions," it is quite possible that they were impressions of a simply twisted cord such as occur so frequently on pottery of this type from so many parts of the British Isles. The suggestion that there had been a perforation in the base may be questioned. As for the presence of a calcined jaw of a horse Petrie does not appear to have seen it, because

it is not mentioned in one account and in the other he only states that it was said to have been picked up.

Mr J. M. Corrie, F.S.A.Scot., has drawn my attention to another old record of a clay vessel, evidently of the Bronze Age, but from Shetland, published in 1866.¹ In a grave of an irregular semi-octagonal shape, composed of six stones, measuring about 5 feet 10 inches in length and width, and covered by a large cap-stone, known as the "Giants' Grave" on the top of the hill of Hestensetter, Landsting, Shetland, were found fragments of pottery and calcined bones. As one of the shards had a "string pattern" on it and seeing it was found with cremated remains, we are justified in presuming it to have belonged to the Bronze Age. Dr Hunt, President of the Anthropological Society at the time, who wrote the description, further remarked that this pottery "essentially differs from any found elsewhere." He had discovered quite a number of steatite urns in graves, but in a mound in Bressay, and in another at Safester Sandsting, he had found pieces of what looked like urns of pottery. They were "heavier than the usual British pottery" and contained bits of mica.² One suggestion he put forward was that they were of steatite which had disintegrated under the action of fire, and another that they had been made of this material in its soft state when newly quarried. A friend, who was "no mean authority on British pottery," had no doubt as to the fragments being genuine pottery although heavier than any "specimens of British pottery known to him." Judging from examples found in Shetland in recent years, it is often very difficult to determine whether they were of decomposed steatite, or had been made of clay with crushed steatite added to it, instead of the pulverised stone which is seen in most of the prehistoric pottery all over the country.

CRAMP.

The vitreous material known as "Cramp," which has just been mentioned as having been found with the cinerary urn from Grimbister, occurs in Shetland and in many of the islands of Orkney. *Wright's English Dialect Dictionary*, quoting from Edmonston's *Etymological Glossary of the Shetland and Orkney Dialect*, 1866, gives the definition of "Cramp" as "small heaps of vitrified glass and stones found in ancient tumuli." It is light in weight, vesicular in texture, and, generally, of a light grey colour.

Mr Corrie informs me that, while surveying these parts for the

¹ *Memoirs of the Anthropological Soc. of London*, vol. ii. p. 310.

² *Ibid.*, vol. ii. p. 306.

Ancient Monuments Commission of Scotland, he had found it, often in considerable quantities, on the islands of Mainland, Papa Westray, Sanday, and Stronsay in Orkney. It was very plentiful in certain parts of Sanday, as at the south end of Els Ness peninsula, where a group of burial mounds were literally covered with it, and in the parish of Sandwick, in Mainland, it was to be found in quite a number of places. Two of the Sandwick localities may be referred to. The first is about 500 yards slightly north of west of the Ring of Brodgar stone circle, where there are a number of burial mounds showing much cramp scattered about; one of these mounds, now measuring about 34 feet in diameter and $2\frac{1}{2}$ feet in height, and showing the stones of an exposed cist on the top, had cramp spread all over it. At the second place there were great quantities lying on the surface, some of the masses being used as copestones on a garden wall. This was at Vestrafield, near the large enclosure which adjoins the quarry that is pointed out locally as the place where the tall pillar-stones in the circles at Stenness and the Ring of Brodgar came from, although these monuments lie 7 and 6 miles away. However, a similar claim is made for a quarry nearer the circles.

In addition to the Grimbister grave, other two, in which a slag-like material, seemingly cramp, was found adhering to incinerated human bones, have been reported during the last few years, and there are also earlier records.¹ Early in 1928 a group of four short cists were unearthed on Groundwater Hill, Orphir. One cist contained the remains of an unburnt human skeleton, and two yielded cremated human bones. Professor Alexander Low, F.S.A.Scot., examined the incinerated remains from one of the cists and reported that on the lower end of a humerus could be seen small "greenish glazed deposits—on examination found to be of the nature of a slag, due to fusion of sand grains."² Again, in 1933, a cinerary urn of clay containing burnt human bones and the lower part of what was probably a vessel of similar character were found in a mound on the farm of Blows, Deerness. These bones were also submitted to Professor Low, who stated that parts of the bones were covered with "a slag-like material."³

Cramp has also been found on the island of Rousay, which lies immediately to the north of the western half of Mainland.

¹ In a large urn of steatite found in a stone cist at Orem's Fancy, Stronsay, were cremated human remains and "several lumps of cramp" (*Proc. S.A. Scot.*, vol. viii. p. 348). A similar urn, also enclosed in a cist in a large burial mound at Stenness, was filled to about one-third of its depth "with calcined bones, largely mingled with vitrified matter" (*Anderson, Scotland in Pagan Times—The Iron Age*, p. 70).

² *Proc. Soc. Ant. Scot.*, vol. lxiii. p. 383.

³ *Ibid.*, vol. lxvii. p. 345.

On a terrace on the steep hillside rising from Eynhallow Sound, about 100 yards north of the deserted house known as Mount Pleasant, in the Frotoft district, and 300 feet above sea-level, are two large oblong slabs, the smaller one superimposed on the larger. Their western edges are in alignment, running north-north-east and south-south-west, and diagonally they lie with a tilt downwards towards the south-south-east. The lower stone measures 7 feet in length, 5 feet 9 inches in breadth, and 15 inches in thickness, and the upper one is 6 feet 8 inches in length, 4 feet in breadth, and 11 inches in thickness. Under the lower stone



Fig. 2. Structure at Mount Pleasant, Rousay, Orkney.

is a face of dry-stone building, measuring 4 feet 9 inches in length and 15 inches in height, set back from the western edge of the superincumbent slab 6 inches at the north end and 12 inches at the south end. From the latter a small flag placed on edge projects forward (fig. 2). This construction, the purpose of which has not been discovered, was examined by Mr Grant a few years ago. Fire-fractured stones and about a barrowful of cramp were found, lying about 3 feet in front of the western edge of the construction.

In the Museum are two steatite urns from Orkney which still contain the relics found in them. In one, from Rousay, presented in 1860, are three double handfuls of bones and about twenty pieces of cramp. In the other, which bears no specific locality, there are about the same quantity of bones and considerably more cramp.

Records from Shetland are very rare, but there are two urns, also in the Museum, with the remains which were found in them. The first is a cinerary urn of clay, from Papa Stour, which still retains about a gallon of burnt bones and more than twenty pieces of cramp, measuring up to $2\frac{1}{2}$ inches in length. The second, from Uyea, is of steatite; it contains a very small quantity of bones with small globules of cramp adhering to them.

So far we have been able to cite seven old records of the occurrence of cramp in interments after cremation. But the results of excavations carried out by Mr Walter G. Grant at Quandale, in Rousay, this spring so emphasise this association that they deserve fuller consideration. He examined more than a dozen short cists, some of which had been previously disturbed. In spite of this, cramp was found among the incinerated bones in at least ten of them. In one cist only one piece the size of a bean was recovered, in another two fragments, and in others more; the greatest number found in a single grave was about forty, but this was an exceptionally large representation. The fragments from these cists were invariably small, none exceeding $1\frac{1}{2}$ inch in length, and in form many resembled pieces of grey coral. One of the graves examined was in the form of a small circular building of stone containing an urn of clay, within which were found four double handfuls of cremated bones and a double handful of cramp, which, however, was generally in larger fragments than in the other graves, one piece measuring $3\frac{1}{2}$ inches in length. It is very significant that while an occasional piece of charcoal was discovered in some but not all of the cists, the total quantity found was very small—indeed it was practically negligible. There was also a complete absence of peat ash in nearly all the cists. Of course it may be argued that in collecting the remains after burning in a fire of peat no ash need be lifted. The same may be said of charcoal, but its occurrence amongst cremated bones in prehistoric graves in other parts of Scotland is quite common.

Cramp was found either adhering to the bones or the latter were embedded in the former in at least six of the Quandale graves, and also in the other seven before referred to. It is thus quite clear that these pieces must have been produced during the process of cremation. In Orkney it is a common idea that cramp was formed by the fusing of sand attached to dry seaweed while it was being burnt. May it not be that dried seaweed was the fuel used for cremating human bodies in Orkney and Shetland during the Bronze Age, especially as we are told that there was a great scarcity or an entire absence of timber in most of these islands in prehistoric times. To-day there are a few small plantations of comparatively recent date in Mainland and Rousay.

As we have seen, the pieces of cramp found in the graves are small. This is just what is to be expected, as it is reasonable to believe that only small odd pieces would be gathered up with the incinerated bones which were to be interred in a grave which might be some distance away. Larger masses would be left where the cremation took place, but no such masses have been found, so far, in the Quendale district. If the cremations which we may surmise had taken place here, and if we are right in assuming that dried seaweed was utilized, it is not unreasonable to believe that the incineration would be carried out near the seashore, where there was a supply of fuel. The winter storms sweeping in from the Atlantic would soon dissipate any cramp left within reach of the waves.

It is different in Sandwick parish, where so much cramp is still to be seen. The cremations which have taken place here must have been very numerous, as more than one hundred burial mounds can still be counted within its area, and short cists are very common. It may be remarked that in Orkney the published discoveries of inhumed burials are infinitely fewer than are those of burials after cremation. As most of the parish lies miles from the shore, it would be necessary at times to transport the seaweed a long distance to the place of cremation, where the resultant cramp would be left lying about or, as we have seen, sometimes thrown on to a burial mound.

A SERIES OF SPECIMENS OF "CRAMP" FROM ORKNEY, SUBMITTED BY WALLACE THORNEYCROFT, Esq., AND DR. J. GRAHAM CALLANDER, TO THE GEOLOGICAL SURVEY AND MUSEUM, LONDON, WERE EXAMINED PETROGRAPHICALLY BY MR. C. F. DAVIDSON, B.Sc., F.R.G.S.E., F.G.S., WHO REPORTED AS FOLLOWS:—

Specimens Examined.

- (i) From Vestrafiold, in north-west corner of parish of Sandwick, about $1\frac{1}{2}$ miles north of the Bay of Skail.
- (ii) From south-west slope of Blotchnie Field, at Mount Pleasant, near Hullion, south side of Rousay.
- (iii) From a steatite urn, Rousay.

Microscopic Characters.

Thin sections were prepared from fragments of the rock previously treated with synthetic resin.

The specimens are quartzo-feldspathic slags. There are few relics

of the original structure of the rocks, and it is difficult to say definitely whether the original rocks were sedimentary, igneous, or metamorphic. From their general appearance and from the absence of ferromagnesian minerals it is believed that they were argillaceous quartzose sandstones, rocks also commonly used in the vitrified forts.

The slags are highly vesicular, and large empty bubbles of rounded or amœboid form are visible, commonly ranging from 0.1 mm. to 3 mm. in diameter, but exceptionally reaching 1 cm. or more. Much of the groundmass of the rocks is formed of a siliceous glass, the refractive index of which is close to that of Canada balsam (1.540). Irregular felted growths of an obscure acicular mineral are locally present in large amount. Because of their extremely minute size, the needles cannot readily be identified with accuracy, but as they survived treatment for several weeks by cold hydrofluoric acid, they are most probably sillimanite.

A great number of small irregular fragments of quartz, a little potash feldspar, and occasionally plagioclase are evident. The amount of these fragments varies considerably from place to place, and fewest are seen where fusion is most pronounced.

Chemical Analysis.

Mr. Thorneycroft instructed me to have an analysis of the "cramp" carried out. A specimen from locality (i) was accordingly analysed by Dr. Naima Sahlbom of Stockholm. Her results are given on p. 450, along with analyses of other rocks for comparison.

I. "Cramp," Vestrafield, parish of Sandwick, Orkney, about $1\frac{1}{2}$ miles north of the Bay of Skaill. Anal. Dr. Naima Sahlbom.

II. Sandstone of Lower Old Red Sandstone age, Penning Hill Quarries, $\frac{1}{3}$ mile N.W. of Tulloch Hill, near Darvel, Ayrshire. Anal. E. G. Radley. Quoted from "The Geology of North Ayrshire," *Mem. Geol. Survey*, 1930, p. 56.

III. Composite analysis of 253 sandstones. Quoted from F. W. Clarke, "The Data of Geochemistry," *Bull.* 695, United States Geological Survey, p. 29, 1920.

IV. Composite analysis of 78 shales. Quoted from F. W. Clarke, *op. cit.*, p. 29.

Part of specimen (iii) (from a steatite urn, Rousay) was examined for iodine by Mr. C. O. Harvey. No iodine was found. It should be noted that this specimen was in an earthy and decomposed condition.

	I	II	III	IV
SiO ₂	72.92	70.87	78.66	58.38
TiO ₂	0.96	0.54	0.25	0.65
Al ₂ O ₃	13.85	11.66	4.78	15.47
Fe ₂ O ₃	0.64	2.38	1.08	4.03
FeO	1.44	1.81	0.30	2.46
MnO	0.04	0.21	trace	trace
MgO	0.59	3.03	1.17	2.45
CaO	1.12	1.79	5.52	3.12
BaO	...	0.02	0.05	0.05
Na ₂ O	2.50	1.77	0.45	1.31
K ₂ O	3.29	2.29	1.32	3.25
Li ₂ O	...	trace	trace	trace
H ₂ O + 105° C.	0.51	2.50	1.33	3.68
H ₂ O - 105° C.	0.20	0.26	0.31	1.34
P ₂ O ₅	0.38	0.11	0.08	0.17
CO ₂	n.f.	1.09	5.04	2.64
Cl	0.61	n.f.	trace	...
F	n.s.d.	n.f.	...	...
S	trace	...	...	...
C (estimated)	0.79	...	...	0.81
SO ₃	...	...	0.07	0.65
	<hr/> 99.84	<hr/> 100.33	<hr/> 100.41	<hr/> 100.46
less O for Cl and F	0.14	...	...	...
	<hr/> 99.70	<hr/> 100.33	<hr/> 100.41	<hr/> 100.46

Temperature and Conditions of Formation.

It appears likely that the rocks fused in the formation of "cramp" were commonly the local Old Red Sandstones. Little scientific information is available on the temperature of fusion of these rocks in a dry state. If we regard the sandstones as essentially quartz-feldspar aggregates, we may expect them to have melting temperatures not far removed from those of granites. Daly (*Igneous Rocks and the Depths of the Earth*, 1933, p. 66) places the fusion and flowage of granites between 1215° C. and 1255° C. Recent work, however, by Greig, Shepherd and Merwin (*Carn. Inst. Washington Year Book*, No. 30, 1931, p. 75) indicates that fusion may take place at much lower temperatures than these *if the rocks are heated over long periods*—thus, heated for one week at 800° C. dry powdered granite became half liquid, and in one specimen melting occurred as low as 570° C.

The presence of fluxes would appear to be required, however, to bring rock-fusion within the range of temperatures readily obtainable by early man; and these fluxes may possibly have been supplied by vegetable

ashes. Dr. Callander has ingeniously suggested that the fuel used in these bronze age cremations in which "cramp" was formed was dried seaweed. This may well have been so, considering the scarcity of wood fuel in Orkney—the growth of trees in the islands in Bronze Age times was probably no greater than to-day (*vide* G. Erdtmann, "Studies in the Postarctic History of the Forests of North-western Europe. I. Investigations in the British Isles," *Geol. Fören. Stockh. Förhandl.*, vol. 1, 1928, p. 123)*.

The chemical analysis of "cramp" (I) already quoted lends some support to this view. If compared with an average analysis of sandstone (III) the rock is seen to be high in alumina, and consequently it is most probable that the original sandstone of the "cramp" was moderately argillaceous—the other analysis of Old Red Sandstone quoted (II), also high in alumina, is that of a rock containing fragments of basic lavas, and is consequently rather high in iron oxides and magnesia. It will be seen, also, that the "cramp" is decidedly low in lime, although many Orkney Old Red sandstones are markedly calcareous. But by far the most interesting facts of the analysis are the notably high content of alkalis (both soda and potash) and of chlorine, the high phosphorus, and the considerable content of organic matter.

The ash of seaweed, variously known as "kelp" or "varec," ranges considerably in composition, but usually contains about 10 per cent. to 12 per cent. potassium sulphate, 20 per cent. to 25 per cent. potassium chloride, 5 per cent. sodium carbonate, 18 per cent. to 20 per cent. of other sodium and magnesium salts, and 40 per cent. to 50 per cent. of insoluble ash (carbonaceous and siliceous matter, etc.). The iodine content may range from 1 per cent. to 6 per cent. Accordingly the high content of alkalis and chlorine in "cramp" may quite readily have been derived from a seaweed fuel, part of the ash of which became fixed in the slag during fusion. The absence of iodine found on chemical analysis of the decomposed "cramp" from the Rousay steatite urn does not necessarily invalidate this view, for the alkali iodides are volatile compounds, and free iodine, which one would not expect present, itself vapourizes at about 184° C. The marked volatility of these iodine compounds is reflected in the care taken, in burning seaweed for "kelp," not to let the smouldering mass burst into flame or rise to a high temperature.

The high content of phosphorus is difficult to account for, but may have been derived from the bone ashes from the cremation. The absence of a considerable amount of lime would, however, appear to contradict this view.

The temperatures available by simple heating with fuel could, of course, be considerably increased by a blast action, and from the scoriaceous nature of the slags—which in some cases are even of a pumiceous character—it seems not unlikely that some action of this kind has been carried out. It is difficult otherwise to account for the extremely vesicular appearance of the “cramp.”

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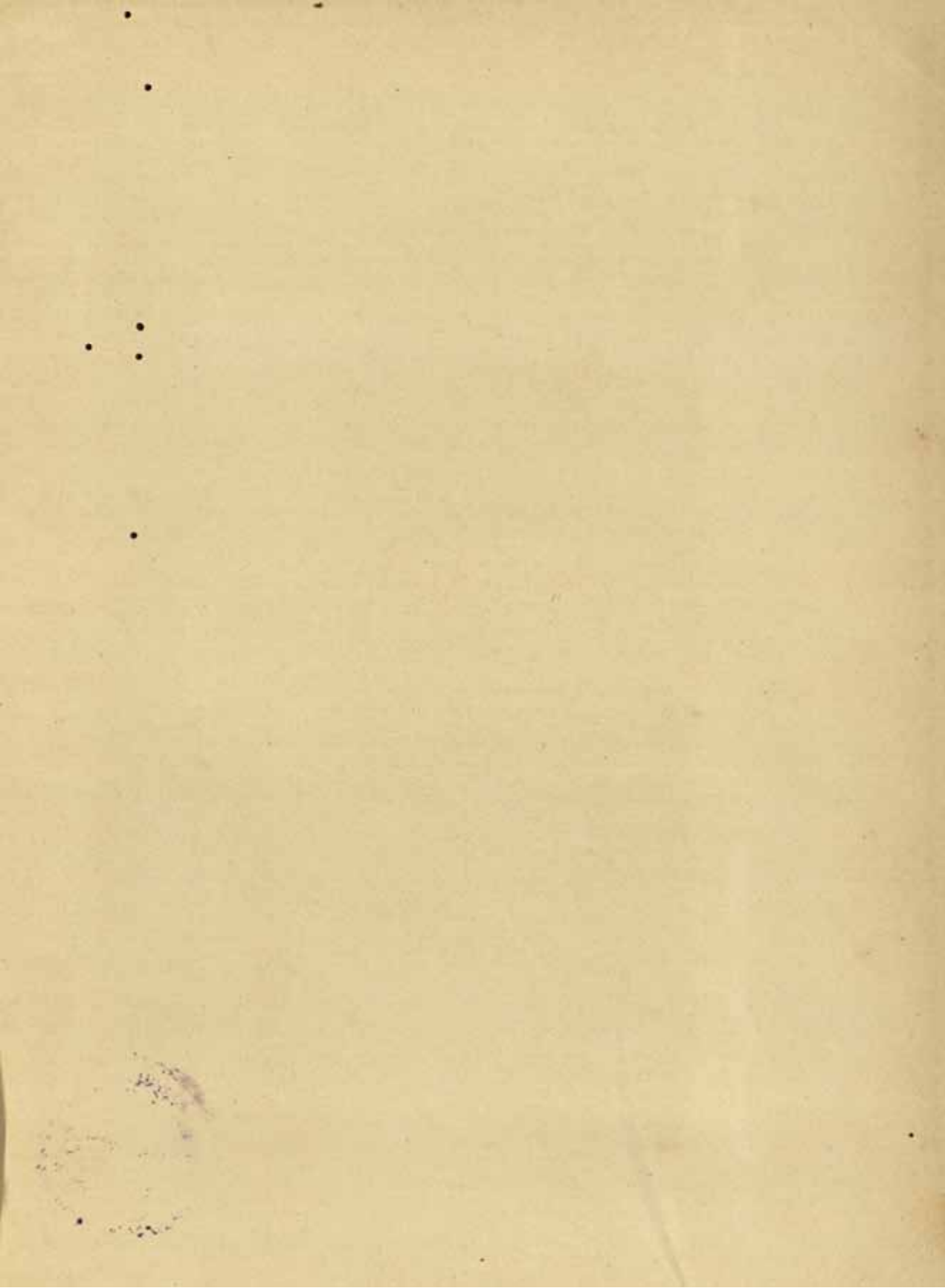
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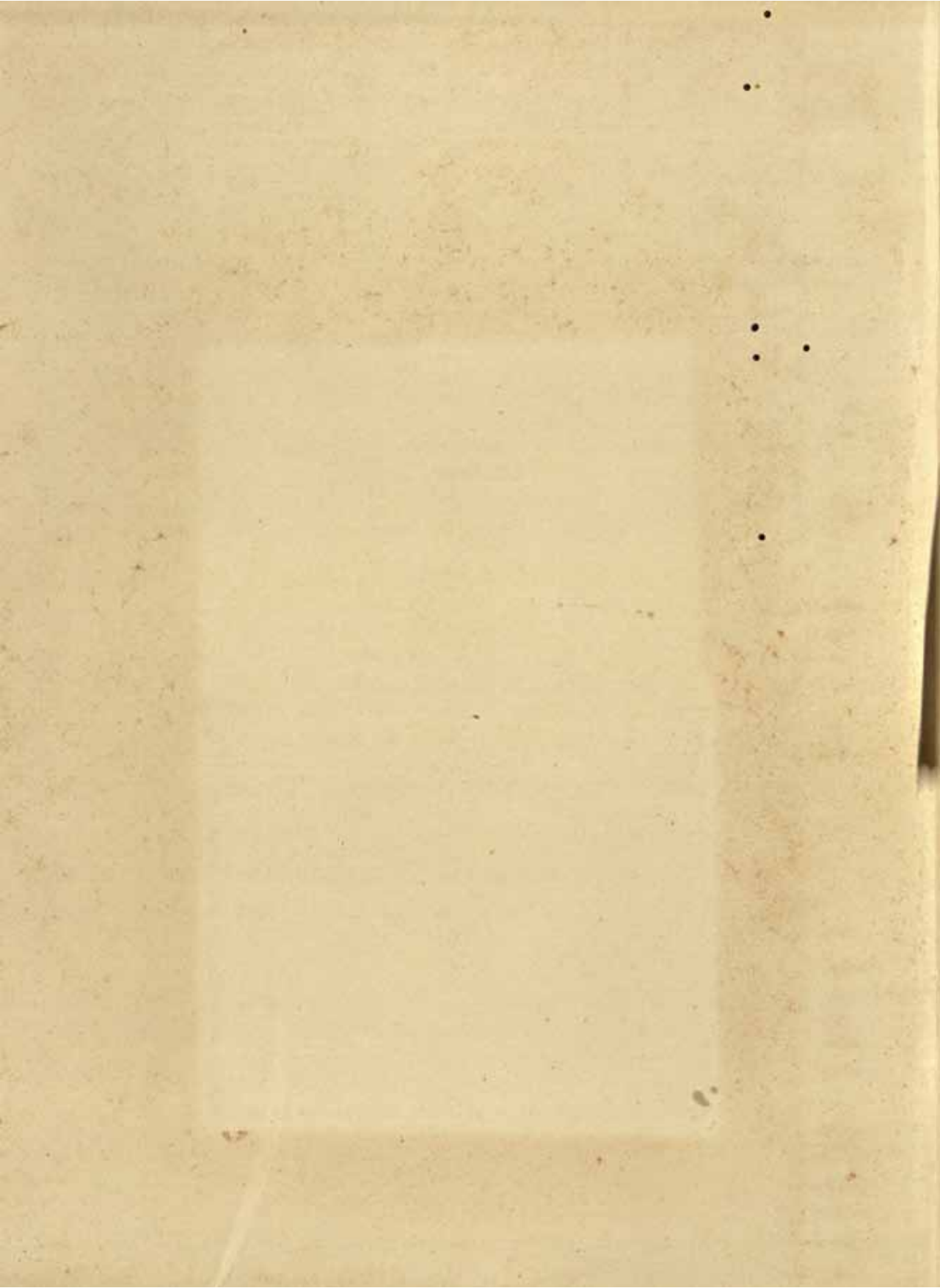
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